



User Guide

Personal Computer
VGC-RC300 Series

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Before Use

Congratulations on your purchase of this Sony VAIO® computer, and welcome to the on-screen User Guide. Sony has combined leading-edge technology in audio, video, computing, and communications to provide state-of-the-art personal computing.

Documentation

Your documentation includes printed information and user guides to read on your VAIO computer.

Printed Documentation

- ❑ **Welcome mat** — Contains an overview of connections, setting up information, etc.
- ❑ **Safety Information** — Contains safety guidelines and owner information.

Non-printed Documentation

- ❑ **User Guide** (this manual) — Contains features of your computer. It also includes information about the software programs included with your computer, as well as information on solving common problems.
- ❑ **Specifications** — The online **Specifications** describe the hardware and software configuration of your VAIO computer.

To view the online **Specifications**:

- 1 Connect to the Internet.
- 2 Go to the Sony online support Web site at <http://esupport.sony.com/EN/VAIO/> for customers in USA, at <http://www.sony.ca/support> for customers in Canada, or at <http://esupport.sony.com/ES/> for customers in Latin American countries or areas.

- ❑ **VAIO Recovery Guide** — Provides information about restoring individual software programs, software drivers, and drive partition(s) or your entire hard disk drive to the original factory installed settings.

To access this on-screen guide:

- 1 Click **Start**, point to **All Programs**, and click **VAIO Support Central**.
- 2 Click **VAIO Documentation**.
- 3 Click **VAIO Recovery Guide**.

- ❑ **RAID guide** — Provides an overview of RAID systems and the various RAID levels (or types) that can be configured with your VAIO computer. It lists detailed procedures for using the **RAID Recovery** program to configure the hard disk drives, change your computer's RAID array, or to remove the RAID configuration. Additional procedures are also provided for using the **VAIO Recovery** utility and the **Intel Storage Utility** programs.

To access this on-screen guide:

- 1 Click **Start**, point to **All Programs**, and click **VAIO Support Central**.
- 2 Click **VAIO Documentation**.
- 3 Click **RAID guide**.

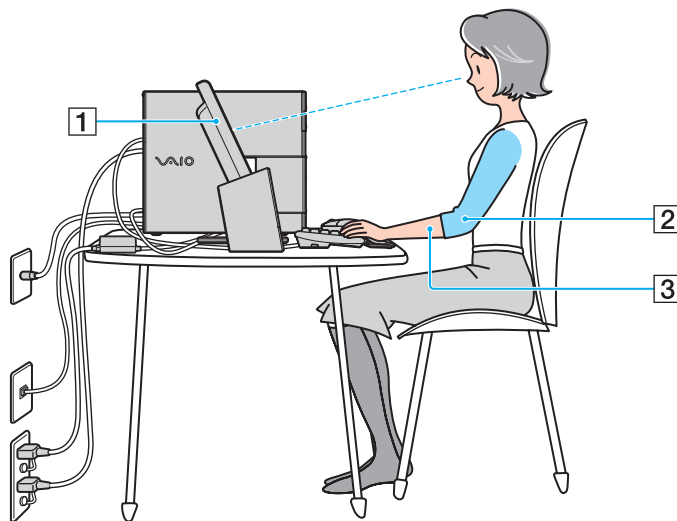
- ❑ **MCE guide** (Selected models only) — Provides information about using the **Windows XP Media Center Edition** operating system.

To access this on-screen guide:

- 1 Click **Start**, point to **All Programs**, and click **VAIO Support Central**.
- 2 Click **VAIO Documentation**.
- 3 Click **MCE guide**.

Ergonomic Considerations

Whenever possible, you should attempt to take account of the following ergonomic considerations:



- ❑ **Stable work surface** — Use a stable work surface large enough to support the computer and other peripheral equipment.
- ❑ **Ventilation** — Leave at least eight inches of space on the left and back sides of your computer to enable proper ventilation.
- ❑ **Position of your computer** — Place the display directly in front of you (1). Keep your forearms horizontal (2), with your wrists in a neutral, comfortable position (3) while using the keyboard, pointing device, or external mouse. Let your upper arms hang naturally at your sides. Have breaks during sessions with your computer. Excessive use of the computer may strain muscles or tendons.

- ❑ **Furniture and posture** – Sit in a chair with good back support and armrests. Adjust the level of the chair so your feet are flat on the floor. A footrest may make you more comfortable. Sit with relaxed, upright posture — avoid slouching forward or leaning far backward.
- ❑ **Viewing angle of the display** – Position the display 18 to 26 inches directly in front of you, with the top of the screen at or a little below eye level. Use the display's tilting feature to find the best position. You can reduce eye strain and muscle fatigue by placing the display in the proper position.
- ❑ **Lighting** – Choose a location where windows and lights do not create glare and reflection on the display. Use indirect lighting to avoid bright spots on the display. You can also purchase accessories for your display that help reduce glare. Proper lighting adds to your comfort and work effectiveness.

Getting Started

This section describes how to get started with using your VAIO computer.

! Before starting your computer for the first time, do not connect any new hardware that did not normally come with your computer. Make sure to start up your computer with only the supplied accessories connected and set up your system. Upon completion, connect one device (for example, a printer, external hard disk drive, scanner, and so on) at a time, following the manufacturer's instructions.

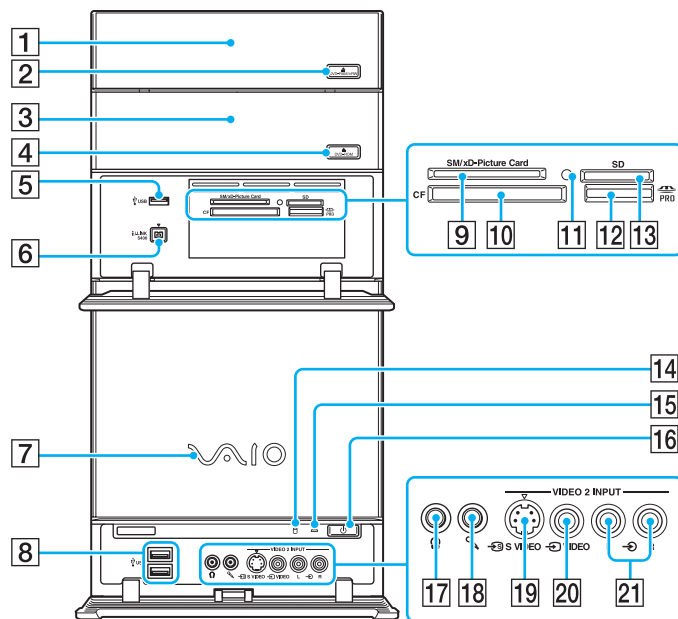
- ❑ **Locating Controls and Ports** [\(page 12\)](#)
- ❑ **About the Indicator Lights** [\(page 15\)](#)
- ❑ **Setting Up Your Computer** [\(page 16\)](#)
- ❑ **Shutting Down Your Computer Safely** [\(page 28\)](#)

Locating Controls and Ports

Take a moment to identify the controls and ports shown on the following pages.

! Your computer may not be equipped with all of the hardware features described in this section. The location of the controls, ports, and jacks may vary from the illustrations shown below, depending on the model you purchased. See the online **Specifications** for your computer's specific hardware configuration.

Front



- 1 Optical disc drive 1 (page 38)
See the online **Specifications** for your computer's hardware configuration.
- 2 Drive 1 eject button (page 38)

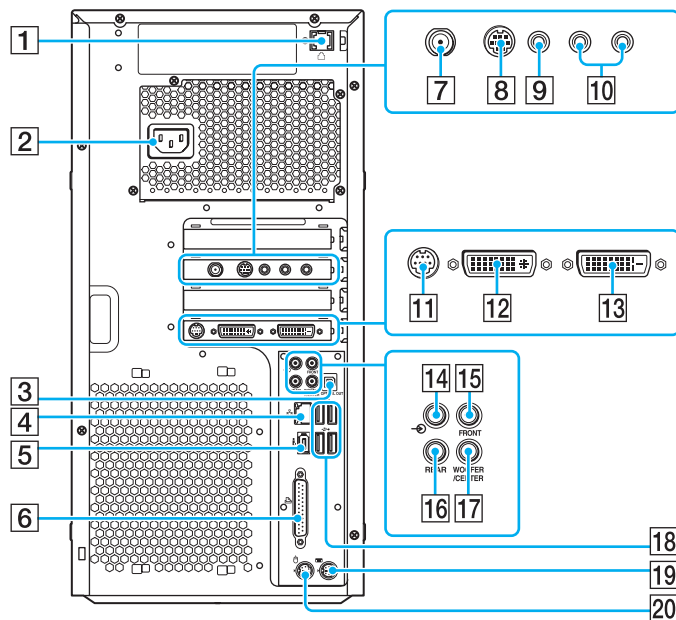
- 3 Optical disc drive 2 (page 38)
See the online **Specifications** for your computer's hardware configuration.
- 4 Drive 2 eject button (page 38)
- 5 Hi-Speed **USB** (USB 2.0) port*¹ (page 76)
- 6 **i.LINK** (IEEE 1394) **S400** port (page 80)
- 7 VAIO power indicator (page 15)
- 8 Hi-Speed **USB** (USB 2.0) ports*¹ (page 76)
- 9 **SM/xD-Picture Card** slot (page 67)
- 10 **CF** (CompactFlash®) memory card slot (page 67)
- 11 Media Access indicator (page 15)
- 12 Memory Stick media slot*² (page 64)
- 13 **SD** memory card slot (page 67)
- 14 Drive indicator (page 15)
- 15 Standby indicator (page 15)
- 16 Power button
- 17 Headphones jack
- 18 Microphone jack (page 73)
- 19 **S VIDEO** In port*³ (page 74)
- 20 Composite Video In jack*³ (page 74)
- 21 Composite Audio In (L/R) jacks*³ (page 74)

*¹ Supports high-/full-/low- speeds.

*² Your computer supports Memory Stick Duo media and Memory Stick PRO media with high speed and high capacity capabilities.

*³ On selected models only.

Back



1 Modem port (page 22)

2 AC In port (page 25)

3 S/PDIF **OPTICAL OUT** port

Connect digital equipment such as an AV amplifier.

4 Network (Ethernet) port (page 82)

5 i.LINK (IEEE 1394) S400 port (page 80)

6 Printer port (page 79)

7 VHF/UHF port*¹ (page 48)

8 S Video In port*¹ (page 74)

9 Composite Video In jack*¹ (page 74)

10 Composite Audio In (L/R) jacks*¹ (page 74)

11 TV Out (S Video/Video) port (page 16)

12 DVI-I port (page 16)

13 DVI-D port (page 16)

14 Line In jack

15 **FRONT** jack

16 **REAR** jack

17 **WOOFER/CENTER** jack

18 Hi-Speed USB (USB 2.0) ports*² (page 76)

19 Keyboard port


20 Mouse port

*¹ On selected models only.

*² Supports high-/full-/low- speeds.

About the Indicator Lights

Your computer is equipped with the following indicator lights.

Indicator	Functions
VAIO power	Illuminates when the computer is on and turns off when the computer is off.
Standby	Illuminates in orange only when the computer is in Standby mode.
Media Access	Illuminates when data is read from or written to a memory card. (Do not enter Standby mode or turn off the computer when this indicator is on.) When the indicator is off, the memory card is not being used.
Drive 	Illuminates when data is read from or written to the hard disk or optical disc drive. Do not enter Standby mode or turn off the computer when this indicator is on.

Setting Up Your Computer

Your computer may not be equipped with all of the hardware features described in this section. The location of the controls, ports, and jacks may vary from the illustrations shown below, depending on the model you purchased. See the online **Specifications** for your computer's specific hardware configuration.

Connecting a Display (Monitor)

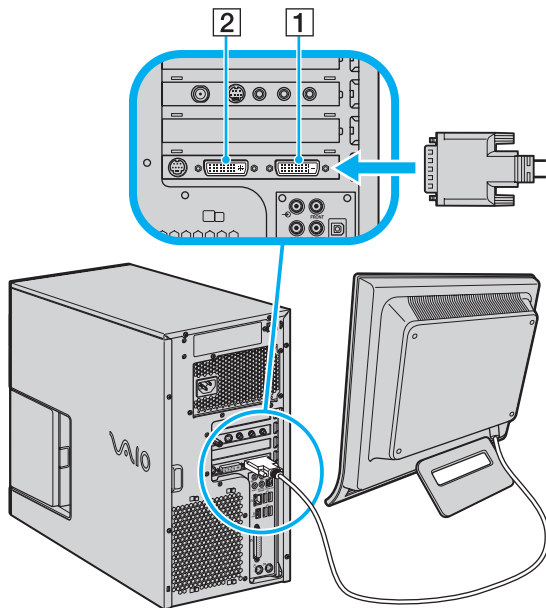
A display may be supplied with your computer. For details on the bundled accessories, see the online **Specifications**.

To connect a display

- 1 If you want to connect a DVI monitor, plug the display's cable into the DVI-D (1) or DVI-I (2) port.

! If your display is HDCP-compliant, connect it to the DVI-D port. The DVI-I port on your computer is not compliant with the HDCP specification.

- 2 If you want to connect a VGA monitor, use a video adapter device (not supplied) to connect it to the DVI-I port (2).
- 3 If necessary, plug the display's cable into the rear of the display.



You can also connect your TV monitor to your computer. Use an S Video cable or a video cable to connect the TV monitor to the TV Out port. You will hear audio from the speakers connected to your computer, not from the TV. To hear audio from the TV, use a line-out cable (not supplied) to connect the computer and the TV.

! Your computer is compliant with the High-bandwidth Digital Content Protection (HDCP) specification and capable of encrypting the transmission channel of digital video signals for the purpose of copyright protection. This enables you to play and view a wide variety of copyright protected, high-quality contents on such models. Note that you need to connect an HDCP-compliant display to your computer to view the copyright protected contents. If your computer has a non-compliant display connected, you will not be able to play or view any copyright protected contents, including Blu-ray movie contents.

Connecting Speaker Systems

Note that speaker configuration varies depending on the speaker components in use.

To set up the speakers with the computer

- ☐ Match the color of the mini stereo plugs (from the speaker system) to the color of the speaker jacks on the back of the computer.
- ☐ Review the connection instructions provided with your speaker system, as the connection setup may vary.

To select the speaker system

- 1 Click **Start** and then **Control Panel**.
- 2 Click **Sounds, Speech, and Audio Devices**.
- 3 Click **Sounds and Audio Devices**.
- 4 Click **Advanced** under **Speaker settings** on the **Volume** tab.
- 5 Select your speaker system from the **Speaker setup** drop-down list.

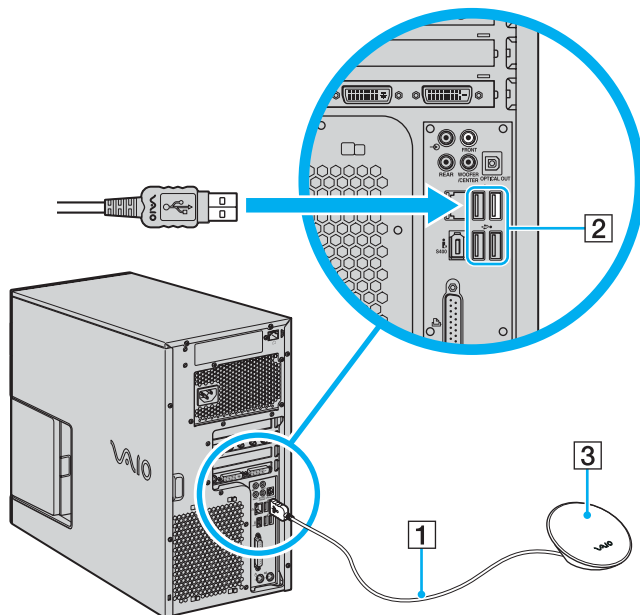
Connecting the Radio Frequency Receiver for the Wireless Keyboard and Mouse

Along with a wireless keyboard and mouse, a radio frequency receiver is also supplied with your computer to enable the computer to communicate with the wireless keyboard and mouse. Make sure to connect the radio frequency receiver before using the wireless keyboard and mouse.

For establishing communication with the wireless keyboard and mouse, see **Using the Wireless Keyboard** (page 30) and **Using the Mouse** (page 34).

To connect the radio frequency receiver

- 1 Plug the radio frequency receiver cable (1) into one of the USB ports (2) on the back of the computer.
You can now use your radio frequency receiver (3).



Connecting the Telephone and Modem

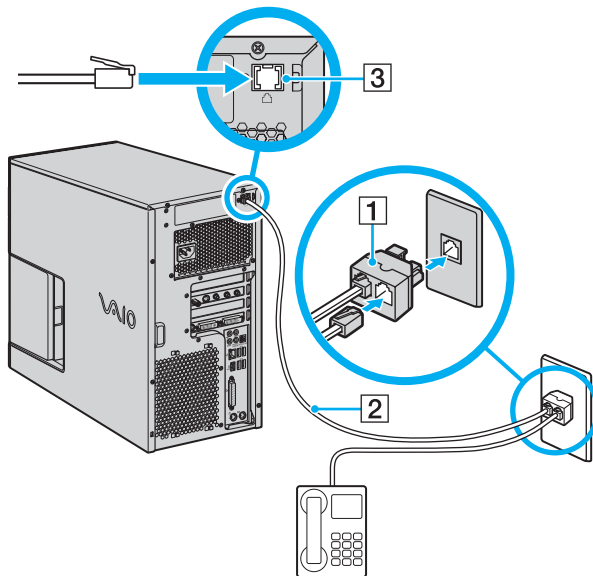
Your computer is equipped with a single modem port to connect the internal modem with a telephone wall jack. To use the wall jack for both telephone and modem lines, purchase an additional RJ-11 phone cable and a "1-to-2" port adapter device (splitter).

To connect the modem


- 1 Unplug your telephone from the wall jack and set aside.
- 2 Plug another phone cable (not supplied) into the modem port on the back of the computer.
- 3 Plug the other end of the cable into the wall jack.

To connect the telephone and modem

- 1 Unplug the phone cable to your telephone from the wall jack.
- 2 Plug it into one of the ports on a "1-to-2" port adapter device (splitter) (1).
- 3 Plug one end of a second phone cable (not supplied) into the other port on the splitter device.
- 4 Insert the plug end of the splitter device into the wall jack.
- 5 Plug the other end of the second phone cable (2) into the modem port (3) on the back of the computer.



!

Your computer has a protective sticker  covering the network (Ethernet) port located on the back of the computer. Connect 10BASE-T, 100BASE-TX, or 1000BASE-T cables to the network (Ethernet) port, depending on your computer's network (Ethernet) port specification. Using incorrect cables or a phone cable may result in an electric current overload that can cause a malfunction, excessive heat, or fire in the network (Ethernet) port. For help on connecting to a network, see your network administrator.

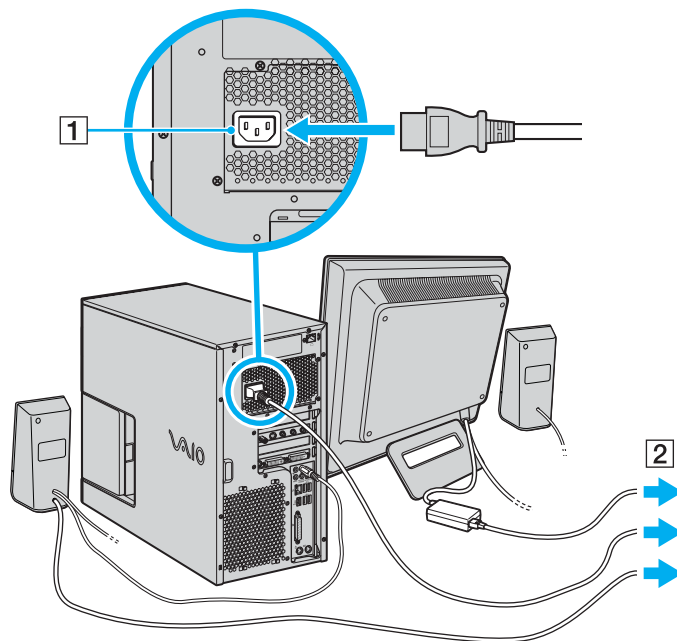
Connecting the Power Cord

Your computer's power cord must be plugged into an AC power source, such as an AC wall outlet, surge protector, or Uninterruptible Power Supply (UPS), before you can establish communication with your wireless keyboard and wireless mouse.

! Use your computer only with the supplied power cord.

To connect the power cord

- 1 Insert the power cord into the AC In port (1) on the back of the computer.
- 2 Insert the power cord plugs from the display, computer, and speakers into a grounded AC wall outlet, surge protector, or Universal Power Supply (UPS) (2).





To disconnect the computer completely from AC power, unplug the power cord.

Make sure that the AC outlet is easily accessible.

If you are interrupted and need to leave your computer suddenly, place the computer into Hibernate mode. See **Using Hibernate Mode** ([page 91](#)). This power saving mode saves the time of shutting down or resuming.

Shutting Down Your Computer Safely

To avoid losing unsaved data, be sure to shut down your computer properly, as described below.

To shut down your computer

- 1 Turn off any peripherals connected to the computer.
- 2 Click **Start** and then **Turn Off Computer**.
The **Turn off computer** window appears.
- 3 Click **Turn Off**.
- 4 Respond to any prompts warning you to save documents or to consider other users and wait for the computer to turn off automatically.
The VAIO power indicator turns off.

Using Your VAIO Computer

This section describes how to get the most out of using your VAIO computer.

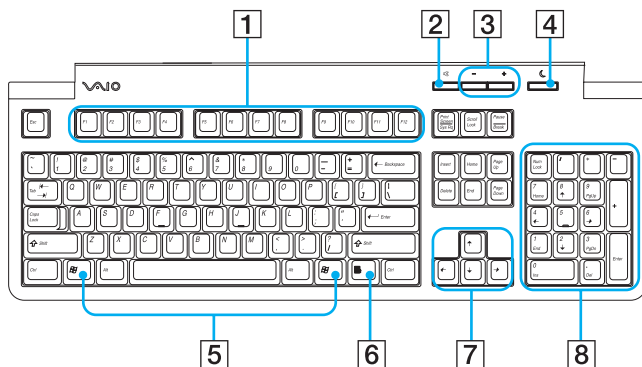
- ❑ **Using the Keyboard** ([page 30](#))
- ❑ **Using the Mouse** ([page 34](#))
- ❑ **Using the Optical Disc Drive** ([page 38](#))
- ❑ **Using the TV Function** ([page 47](#))
- ❑ **Using the Memory Stick Media** ([page 63](#))
- ❑ **Using Other Memory Cards** ([page 67](#))
- ❑ **Using the Internet** ([page 71](#))

Using the Keyboard

A wireless keyboard is supplied with your computer.

The wireless keyboard uses a standard key arrangement with additional keys that perform specific functions.

Using the Wireless Keyboard



- 1** Function keys
Perform certain tasks. The task associated with each function key varies among software applications.
- 2** Muting button
Turns the volume on and off.
- 3** Volume control buttons
Increases (+) or decreases (-) the volume.
- 4** Standby button
Provides for the lower level of power consumption.
For details on power management, see **Using the Power Saving Modes** (page 89).
- 5** Windows keys
Display the **Start** menu.
- 6** Applications key
Displays a shortcut menu in certain software applications.
- 7** Directional arrow keys
Move the pointer on the computer screen.
- 8** Numeric keypad
Use the numeric keypad to type numbers or to perform basic math calculations.

Before You Use the Keyboard

Two AA alkaline batteries are supplied with your computer for use in the wireless keyboard. Before attempting to use the wireless keyboard, you must install the batteries and establish communication between the computer and the keyboard. To connect your wireless keyboard, it must be located within a range of 11 inches from the radio frequency receiver.



To maintain good communication, operate the wireless keyboard within the distance limitations of keyboard: approximately 2 feet (approximately 60 cm) from the radio frequency receiver.

Confirm that the supplied AA batteries are properly installed.

Press the **CONNECT** button located on the bottom of the radio frequency receiver first, and then press the **CONNECT** button on the bottom of the keyboard.

Verify the radio frequency receiver is free of obstructions that may prevent proper operation.

Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices in the area near the wireless keyboard. These devices may cause interference, causing the keyboard to stop working properly.

Do not place metal furniture near the computer or wireless keyboard, as this may create interference, causing the keyboard to stop working properly.

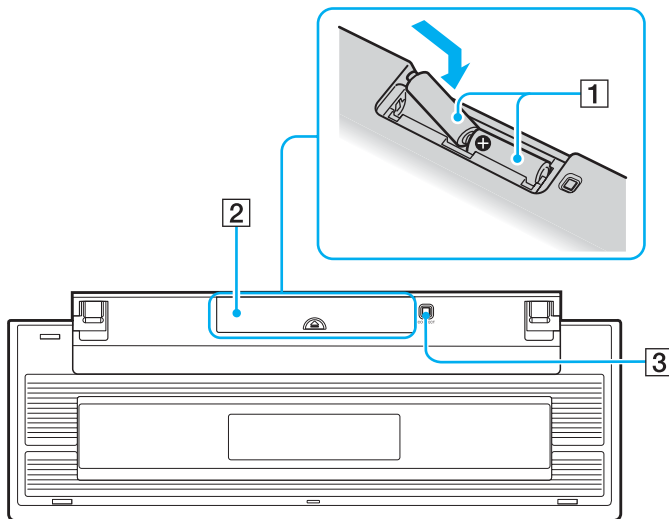
Do not mix old (used) and new batteries when replacing batteries in the wireless keyboard. Always use the same type and manufacture of battery.

Do not mix alkaline with manganese batteries. Using incompatible batteries or mixing used, new or different types of batteries can damage the keyboard.


To connect the wireless keyboard

- 1 Insert the supplied two AA batteries (1) into the battery compartment (2) on the bottom of the wireless keyboard.
- 2 Turn on the computer.
- 3 Press the **CONNECT** button on the bottom of the radio frequency receiver.
- 4 Press the **CONNECT** button (3) on the bottom of the keyboard.
Communication between the wireless keyboard and the computer should now be established.

! Steps 3 and 4 must be completed within 10 seconds of each other.





You can check the keyboard's battery power level by clicking  (wireless keyboard icon) on the taskbar. A warning message may also appear on the computer screen when the keyboard's battery power becomes low.

If the wireless keyboard does not operate properly, the batteries may need to be replaced. If the wireless keyboard is not being used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

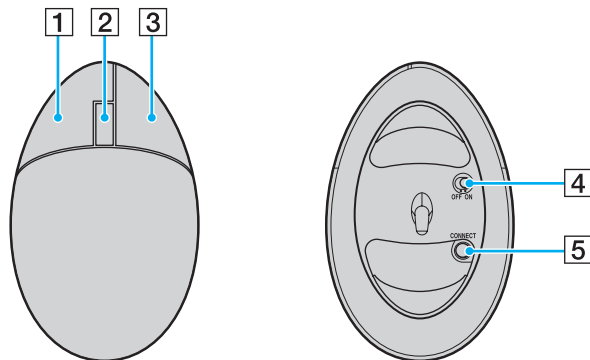
If you want to put the keyboard in a more 'ergonomic' position, flip open the keyboard feet.

Using the Mouse

A wireless mouse is supplied with your computer.

Using the Wireless Mouse

The wireless optical mouse has no cables to plug in and uses a light-emitting diode (LED) instead of a ball.



- 1** Left button
Click or double-click the left button to select items. To drag and drop items, hold the left button down while sliding the mouse, then release the button to drop the item.
- 2** Central wheel
Rotate the central wheel to scroll up or down a page. Press the wheel once to lock the scroll action and control the movement by moving the entire mouse (the scroll function is available only with applications that support it).
- 3** Right button
Press the right button once to display a context-sensitive shortcut menu (not always an active function).
- 4** Power switch
Slide the switch to turn the mouse on and off. This will help you save battery power.
- 5** **CONNECT** button
Press to enable communication between the computer and the wireless mouse.

Before You Use the Mouse

Two AA alkaline batteries are supplied with your computer for use in the wireless mouse. Before using the wireless mouse, you must install the batteries and establish communication between your computer and the mouse. To connect the wireless mouse, it must be located within a range of 11 inches from the radio frequency receiver.



To maintain good communication, operate the wireless mouse within the distance limitation of the mouse: approximately 2 feet (60 cm) from the radio frequency receiver.

Confirm that the supplied AA batteries are properly installed.

Press the **CONNECT** button located on the bottom of the radio frequency receiver first, and then press the **CONNECT** button on the bottom of the mouse.

Verify the radio frequency receiver is free of obstructions that may prevent proper operation.

Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices in the area near the wireless mouse. These devices may cause interference, causing the mouse to stop working properly.

Use surfaces such as plain paper, card stock, or fabric that have minimal repetitive patterns.

Avoid surfaces such as mirrors, smooth glass, or magazines that have half- tone printing.

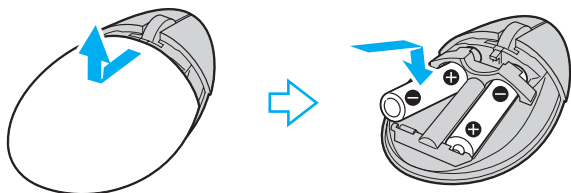
Do not place metal furniture near the computer or wireless mouse, as this may create interference, causing the mouse to stop working properly.

Do not mix old (used) and new batteries when replacing batteries in the wireless mouse. Always use the same type and manufacture of battery.

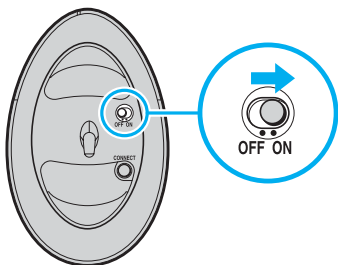
Do not mix alkaline with manganese batteries. Using incompatible batteries or mixing used, new or different types of batteries can damage the mouse.

To connect the wireless mouse

- 1 Insert the supplied two AA batteries into the wireless mouse as shown below.




- 2 Turn on the computer.
- 3 Press the **CONNECT** button on the bottom of the radio frequency receiver.
- 4 Turn over the wireless mouse, slide the power switch to the **ON** position, and press the **CONNECT** button. Communication between the wireless mouse and the computer should now be established.



! Step 3 and 4 must be completed within 10 seconds of each other.



You can check the battery power level for the mouse by clicking  (wireless mouse icon) on the taskbar.

If the wireless mouse does not operate properly, the batteries may need to be replaced. If the wireless mouse is not being used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

Adjusting the Mouse Functions

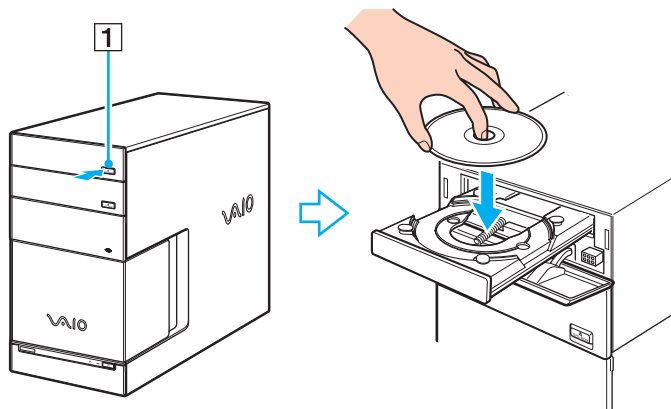
- 1 Click **Start** and then **Control Panel**.
- 2 Click **Printers and Other Hardware**.
- 3 Click **Mouse**.
The **Mouse Properties** window appears.
- 4 Change the settings.

Using the Optical Disc Drive

Your computer may be equipped with one or two optical disc drives. See the online **Specifications** for your computer's specific hardware configuration.

To insert a disc

- 1 Turn on the computer.
- 2 Press the drive eject button (1) on the top or bottom optical disc drive, depending on your computer's hardware configuration.
The tray slides out.
- 3 Place a disc in the middle of the tray with the label side facing up and gently push it until the disc clicks into place.



- 4 Close the tray by pushing it in gently.

! Do not remove the optical disc when the computer is in a power saving mode (Standby or Hibernate). Doing so may cause the computer to malfunction.

Reading and Writing CDs, DVDs, and Blu-ray Discs

Your computer plays and records CDs, DVDs, and Blu-ray discs, depending on the model you purchased. Check your specifications for the type of optical disc drive installed on your model. Use the table below to see which types of media your optical disc drive supports.

Optical disc drive	Plays	Records to
DVD-ROM	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+RW, DVD+R DL (Double Layer), and DVD-R DL (Dual Layer)	—
CD-RW/DVD-ROM	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), and DVD+RW	CD-R and CD-RW
DVD±RW (Supporting DVD+R DL)	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), and DVD+RW	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), and DVD+RW
DVD±RW/+R DL/RAM	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), DVD+RW, and DVD-RAM	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD+RW, and DVD-RAM
DVD±RW (Supporting DVD±R DL)	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), and DVD+RW	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), and DVD+RW
DVD±RW/±R DL/RAM	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), DVD+RW, and DVD-RAM	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), DVD+RW, and DVD-RAM

Optical disc drive	Plays	Records to
Blu-ray	CD, CD-R, CD-RW, DVD, most DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), DVD+RW, DVD-RAM, BD-ROM ^{*1} , BD-R ^{*2} , and BD-RE ^{*3}	CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+R DL (Double Layer), DVD-R DL (Dual Layer), DVD+RW, DVD-RAM, BD-R ^{*2} , and BD-RE ^{*3}

^{*1} BD-ROM stands for Blu-ray Disc-Read Only Memory in version 1.1 format.

^{*2} BD-R stands for Blu-ray Disc-Recordable in version 1.1 format.

^{*3} BD-RE stands for Blu-ray Disc-Rewritable in version 2.1 format.

! This product is designed to playback discs that conform to the Compact Disc Digital Audio standard specifications (CD Standard). A DualDisc is a two sided disc product which mates DVD recorded material on one side with digital audio material on the other side. Please be aware that the audio side (non-DVD side) of a DualDisc may not play on this product because it does not conform to the CD Standard.

! Due to the multiple formats of discs now available, when buying pre-recorded or blank discs for use with a VAIO computer, be sure to read the notices on the disc packaging carefully to check both playback and recording compatibility with your computer's optical disc drives. Sony does NOT guarantee the compatibility of VAIO CD drives with discs that are not compliant with the official "CD" format standard (or "DVD" standard in relation to DVD drives). USING NON-COMPLIANT DISCS CAN CAUSE FATAL DAMAGE TO YOUR VAIO PC OR CREATE SOFTWARE CONFLICTS AND CAUSE SYSTEM HANGING. For inquiries about disc formats, contact the individual publisher of the pre-recorded disc or the manufacturer of the recordable disc.



Supports writing data to DVD-RW discs compliant with DVD-RW version 1.1/1.2.

Supports writing data to DVD-R discs compliant with DVD-R for General version 2.0/2.1.

Supports 8cm disc reading, but does not support 8cm disc writing.

Writing data to DVD+R DL (Double Layer) discs is available only on discs supporting DVD+R DL (Double Layer) recording.

Writing data to DVD-R DL (Dual Layer) discs is available only on discs supporting DVD-R DL (Dual Layer) recording.

The DVD±RW/RAM disc drive on your computer does not support the DVD-RAM cartridge. Use non-cartridge discs or discs with removable cartridge.

Writing data to single-sided DVD-RAM discs (2.6 GB) compliant with DVD-RAM version 1.0 is not supported.

Supports writing data to BD-R 1.1 discs (single-layer discs with the capacity of 25 GB, dual-layer discs with the capacity of 50 GB) and BD-RE 2.1 discs (single-layer discs with the capacity of 25 GB, dual-layer discs with the capacity of 50 GB). The Blu-ray drive on your computer does not support BD-RE 1.0 discs and Blu-ray cartridge discs.



You may need to connect to the Internet when playing copyright protected Blu-ray discs.

As with other optical media devices, circumstances may limit compatibility or prevent Blu-ray disc playback. VAIO computers may not support movie playback on packaged media recorded in AVC or VC1 formats at high bit rates.

Requires compatible high-definition display for high definition playback. Playback of AACS protected media may require an HDCP compliant output and HDCP compliant display.

Video recording to Blu-ray Disc media is done in MPEG2 format only.

Region settings are required for Movies and BD-ROM contents. If the region setting and the region of the disc do not match, playback is not possible.

Notes on writing data to a disc

- ❑ To make the data on a disc readable on an optical disc drive, you need to close the session before you eject it. To complete this process, follow the instructions included with your software.
- ❑ Only use circular discs. Do not use discs in any other shape (star, heart, card, etc.), as this may damage the optical disc drive.
- ❑ Do not strike or shake the computer while writing data to a disc.
- ❑ Deactivate the screen saver and exit anti-virus software before writing data to a disc.
- ❑ Do not use memory-resident utility software while writing data to a disc. This may cause the computer to malfunction.
- ❑ When using your software application to burn discs, make sure you exit and close all other applications.
- ❑ Never touch the surface of the disc. Fingerprints and dust on the surface of a disc may cause writing errors.
- ❑ Do not switch power modes while using the pre-installed software and while using the CD burning software.
- ❑ Never affix an adhesive label to discs. This will affect the use of the disc irreparably.

Notes on playing DVDs

To achieve optimum performance when playing DVDs, you should follow these recommendations.

- ☐ Close all open applications before playing a DVD movie.
- ☐ Do not use memory-resident utility software to speed up disc access when playing a DVD. This may cause the computer to malfunction.
- ☐ Deactivate the screen saver and exit anti-virus software before playing a disc.
- ☐ Some discs recorded at 20 or 24 bits may produce noise while playing. If you have audio devices connected, this may damage your hearing and the speakers. Reduce the volume before playing a DVD.
- ☐ Do not switch to power saving modes while the computer is playing a DVD.
- ☐ Region code indicators are labeled on the DVDs to indicate in which region and on what type of player you can play the disc. If the DVD is labeled "all," this means that you can play this DVD in most regions of the world. If the region code of your residence area is different from the label on the DVD disc or on the packaging, you cannot play the disc on your computer.

Playing CDs

To play an audio CD

- 1 Insert a disc into the optical disc drive.
- 2 If nothing appears on the desktop, then click **Start**, point to **All Programs**, and click to start the desired CD software, such as the **SonicStage** software.

If the **Audio CD** window appears, click to select an option.

Copying Files to CDs

See the online **Specifications** to find the type of your optical disc drive, and then **Reading and Writing CDs, DVDs, and Blu-ray Discs** (page 39) to find about the supported disc media.

To copy files to a disc



Do not strike or shake the computer while writing data to a disc.

- 1 Insert a blank disc into the optical disc drive.
If the **CD Drive** window appears, click **Take no action** and then click **OK**.
- 2 Right-click **Start** and then click **Explore**.
- 3 In the **Folders** panel on the left, locate the file(s) or folder(s) you want to copy, right-click the file(s) or folder(s), point to **Send To**, and then click the optical disc drive^{*} name.
- 4 Close the window.
- 5 Click **Start** and then **My Computer**.
- 6 Click the optical disc drive icon under **Devices with Removable Storage**. A new window appears with the file(s) or folder(s) you want to copy listed under **Files Ready to Be Written to the CD**.
- 7 In the **CD Writing Tasks** box, click **Write these files to CD**.
- 8 Follow the instructions in the **CD Writing Wizard**.

^{*} The read/write drive letter designation may vary, depending on your system's hardware configuration.

Playing DVDs

To play a DVD

- 1 Close all running software applications.
- 2 Insert a DVD into the optical disc drive.
- 3 If nothing appears on the desktop, then click **Start**, point to **All Programs**, and click to start the desired DVD software to play the DVD.

For instructions on how to use the software, see the help file on your DVD software.

Copying Files to DVDs

The DVD writing function is available on selected models only. See the online **Specifications** to find the type of your optical disc drive, and then **Reading and Writing CDs, DVDs, and Blu-ray Discs** ([page 39](#)) to find about the supported disc media.

To copy files to a disc

- 1 Insert a disc into the optical disc drive.
- 2 If nothing appears on the desktop, then click **Start**, point to **All Programs**, and click to start the DVD software you want to use.

For instructions on how to use the software, see the help file on your DVD software.

Using the TV Function

Your computer may have a TV tuner board installed along with the **Microsoft Windows XP Media Center Edition** operating system to enhance your computing experience. See the online **Specifications** for your computer's hardware configuration.

Media Center provides you with a wide range of TV, DVD, and video viewing, as well as music recording and playback. This section describes how to set up your TV, set-top box, and other equipment. See the on-screen **MCE guide** for more information on Media Center features.

To access this on-screen guide

- 1 Click **Start**, point to **All Programs**, and click **VAIO Support Central**.
- 2 Click **VAIO Documentation**.
- 3 Click **MCE guide**.

Setting Up TV Connections



The following connections may not be available depending on the country or area of your residency.

The best method of connecting your computer system, TV monitor or display, and cable service access, depends on the type of cable connection available in your home.

TV signal reception strength will vary widely depending on service availability in your area as well as the type of connection available.

One primary cable to connect the computer to a TV cable or antenna is the TV coaxial cable (not supplied). One end connects to the computer's VHF/UHF port, and the other end connects to the cable service access or antenna.

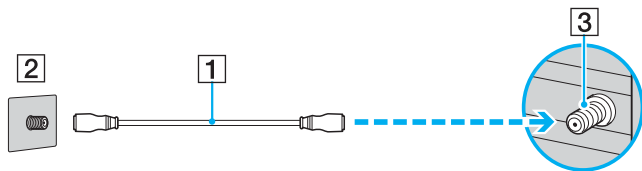


1 TV coaxial cable

Connecting to standard cable access (CATV)

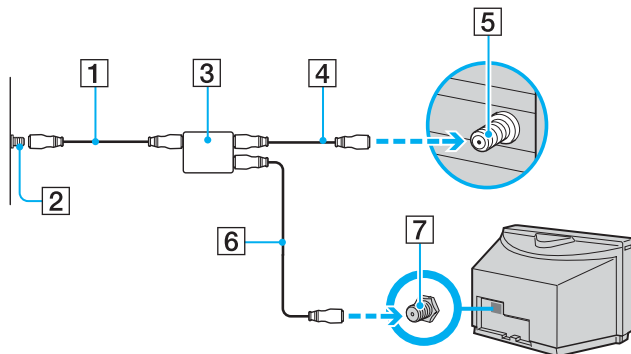
To connect in CATV mode (Option 1)

- 1 Connect one end of a TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2).
- 2 Connect the other end to the **VHF/UHF** port (3) on the computer.



To connect in CATV mode (Option 2)

- 1 Connect one end of a TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2). Connect the other end to the single-connection side of a splitter adapter (3) (not supplied).
- 2 Connect a second TV coaxial cable (4) (not supplied) to the double-connection side of the splitter adapter (3). Connect the other end to the **VHF/UHF** port (5) on the computer.
- 3 Connect a third TV coaxial cable (6) (not supplied) to the double-connection side of the splitter adapter (3). Connect the other end to the VHF/UHF port (7) on the back of your TV monitor or display.



Connecting to a standard antenna

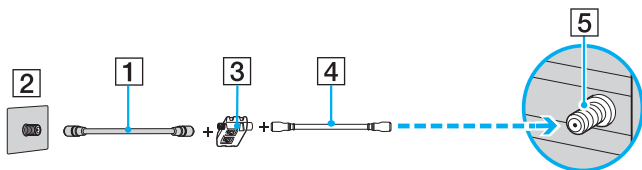
You can connect your computer to an indoor/outdoor antenna system, using Option 1 or Option 2 from the previous section, **Connecting to standard cable access (CATV)** ([page 49](#)). Depending on the type of antenna system in your home, your connection may require a VHF/UHF RF combiner/transformer (not supplied) to connect the computer and the indoor/outdoor antenna system.



If you are connecting to an indoor/outdoor antenna, you may need to reorient the antenna for best reception. Move the antenna cable away from other power sources or connectors to reduce reception interference.

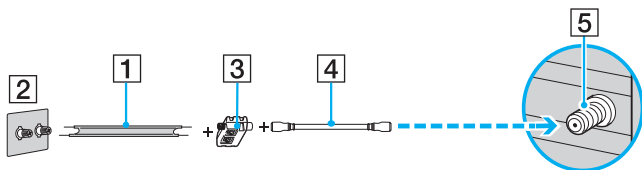
To connect in terrestrial mode (Option 1)

- 1 Connect one end of a TV coaxial cable (1) (not supplied) to your antenna outlet (2). Connect the other end to a VHF/UHF RF combiner/transformer (3) (not supplied).
- 2 Connect one end of another TV coaxial cable (4) (not supplied) to the combiner/transformer (3). Connect the other end to the **VHF/UHF** port (5) on the computer.



To connect in terrestrial mode (Option 2)

- 1 Connect one end of a 300-ohm twin lead cable (1) (not supplied) to the screw-type grips at your antenna outlet (2). Connect the other end to the grips on a VHF/UHF RF combiner/transformer (3) (not supplied).
- 2 Connect one end of a TV coaxial cable (4) (not supplied) to the combiner/transformer (3). Connect the other end to the **VHF/UHF** port (5) on the computer.



Connecting with a cable or satellite set-top box (STB)

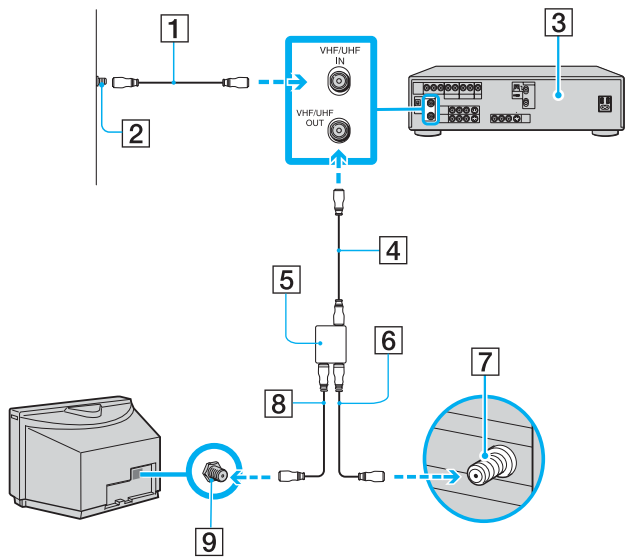
You can connect your computer to cable service access that uses a set-top box (cable or satellite). When using the set-top box (STB) setup, you can only change channels through the STB, using its controls or the supplied remote commander.

When using the STB setup:

- ❑ A standard TV remote control cannot be used to change TV channels. You can use your TV remote control to set the TV to the channel-out number (channel 3, 4, etc.) or direct video input specified by your cable or satellite service provider.
- ❑ You may be able to use a universal remote control or commander to change TV channels, if the device is capable of controlling the STB.

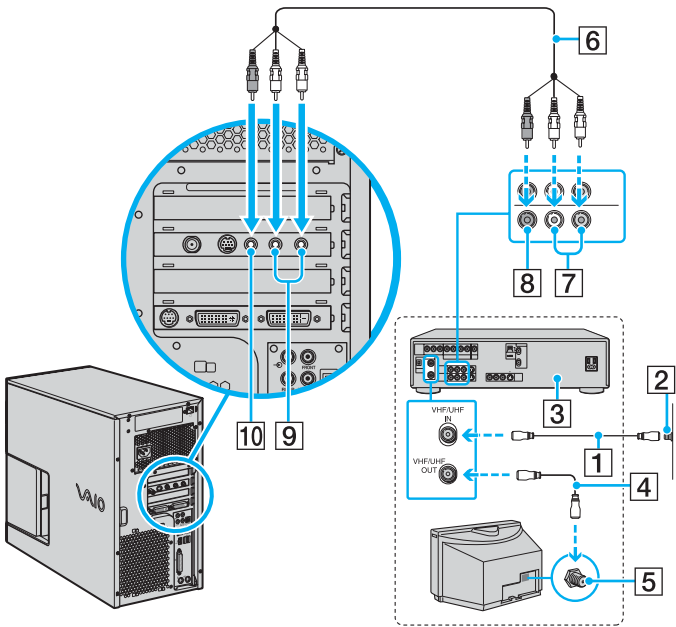
To connect in STB mode (Option 1)

- 1 Connect one end of a TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2). Connect the other end to the VHF/UHF IN port on the back panel of your set-top box (STB) (3).
- 2 Connect a second TV coaxial cable (4) (not supplied) to the VHF/UHF OUT port on the set-top box (STB) (3). Connect the other end to the single-connection end of a splitter device (5) (not supplied).
- 3 Connect a third TV coaxial cable (6) (not supplied) to the double-connection end of the splitter device (5). Connect the other end to the **VHF/UHF** port (7) on the computer.
- 4 Connect a fourth TV coaxial cable (8) (not supplied) to the double-connection end of the splitter device (5). Connect the other end to the VHF/UHF port (9) on the rear of your TV monitor or display.



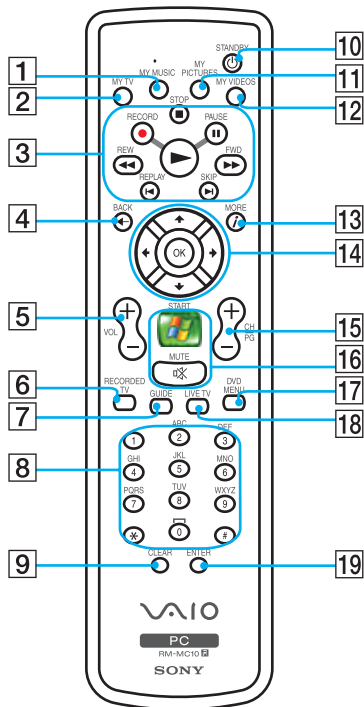
To connect in STB mode (Option 2)

- 1** Connect one end of a TV coaxial cable (1) (not supplied) to your cable service access (wall outlet) (2). Connect the other end to the VHF/UHF IN port on the back panel of your set-top box (STB) (3).
- 2** Connect a second TV coaxial cable (4) (not supplied) to the VHF/UHF OUT port on the set-top box (STB) (3). Connect the other end to the VHF/UHF port (5) on the rear of your TV monitor or display.
- 3** Connect one end of a stereo A/V dubbing cable with triple RCA jacks (6) (not supplied), to the Composite Audio Out (L/R) jacks (7) and the Video Out jack (8) on the back panel of your set-top box (STB) unit (3), matching the plug and jack colors.
- 4** Connect the other RCA jacks of the stereo A/V dubbing cable (6) into the Composite Audio In (L/R) jacks (9) and the Composite Video In jack (10) on the computer, matching the plug and jack colors.




Using the Remote Commander

If your computer supports the TV function, then a remote commander is supplied with the computer for using Media Center features, including TV channel selection.



- 1 MY MUSIC button**
Press to view and listen to your music playlists.
- 2 MY TV button**
Press to view the My TV menu.
- 3 STOP button**
Press to stop media playback or TV recording session.
PAUSE button
Press to pause media playback. Press again to resume playback.
FWD button
Press to fast-forward media at three speeds.
SKIP button
Press to move media forward, for example, one audio track, one DVD chapter, and 30 seconds of recorded TV or video.
REPLAY button
Press to move media backward, for example, one audio track, one DVD chapter, and seven seconds of TV or video.
REW button
Press to move media backward at two speeds.
RECORD button
Press to begin recording.
PLAY ► button
Press to begin media playback.

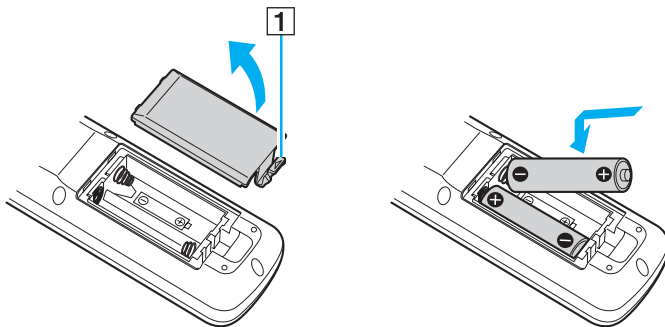
- 4 BACK** button
Press to return to the previous window.
- 5 VOL** buttons
Press to increase (+) or decrease (-) the volume.
- 6 RECORDED TV** button
Press to view previously recorded TV programs (In **My TV** window).
- 7 GUIDE** button
Press to view the TV program guide for your area.
- 8** Alphanumeric buttons
Press to select specific channels or enter text. (Press **ENTER** or **OK** to activate the channel selection.)
- 9 CLEAR** button
Press to backspace and delete entered text.
- 10 STANDBY** button
Press to place the computer in Standby mode to reduce power consumption.
- 11 MY PICTURES** button
Press to view pictures or a slide show.
- 12 MY VIDEOS** button
Press to view videos from your video collection.
- 13 MORE /** button
Press to view additional options that are available for Media Center features.
- 14** Directional arrow buttons
Press the **↑**, **↓**, **←**, and **→** buttons to move the pointer on the computer screen.
OK button
Press **OK** to select the desired action or window option. When watching full-screen TV, press **OK** to return to the previous channel. Press **OK** again to switch between channels.
- 15 CH/PG** (Channel/Page) buttons
Press to change or page up/down channels (no number input required).
- 16 START**  button
Press to open the **Media Center Start** menu.
MUTE button
Press to turn off the sound. Press again to restore the sound.
- 17 DVD MENU** button
Press to open the main menu on a DVD.
- 18 LIVE TV** button
Press to view TV programs.
- 19 ENTER** button
Press to activate feature or action, such as channel selection or return to previous channel. (This button's actions are similar to using the **OK** button.)

Before you use the remote commander

Before using the remote commander, you need to insert the supplied AA manganese batteries and connect the remote sensor to enable communication between the computer and the remote commander.

To insert batteries

- 1 Turn the remote commander over.
- 2 Press in the tab (1) and lift the battery cover up.
- 3 Insert the supplied two AA batteries into the remote commander.




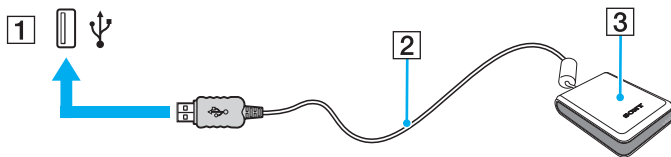
- 4 Align the battery cover to the remote commander.
- 5 Press down until the cover clicks into place.



If the remote commander does not operate properly, you may need to replace the batteries. When the remote commander has not been used for an extended period of time, remove the batteries to avoid possible damage from battery leakage.

To connect the remote sensor

- 1 Choose the USB port (1)  you prefer to use.
- 2 Plug the remote sensor cable (2) into the USB port.

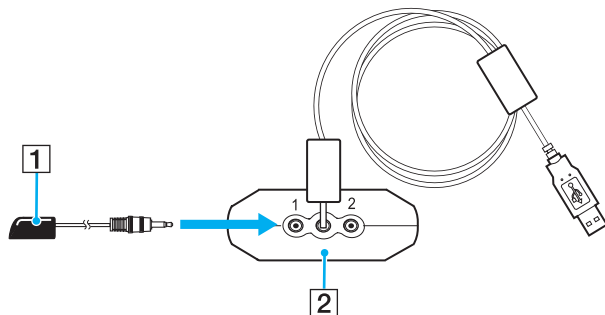


- 3 Position the remote sensor (3) to enable unobstructed communication with the remote commander.

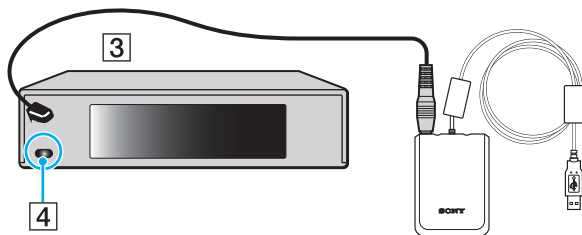
If you are using a cable or satellite set-top box, you can attach the remote sensor control to the remote sensor, which enables you to control the set-top box with the remote commander.

To connect the remote sensor control

- 1 Plug the cable from the remote sensor control (1) into either jack (1 or 2) on the back of the remote sensor (2).



- 2 Remove the adhesive tape cover from the bottom of the remote sensor control (1).
- 3 Attach the remote sensor control (1) onto the set-top box (3) near the infrared port (4).



! Do not cover the infrared port when attaching the remote sensor control.

The remote sensor must be visible in a line-of-sight with the remote commander in order to function properly.

Using the Memory Stick Media

Your computer supports the Memory Stick media. Memory Stick media is a compact, portable, and versatile device especially designed for exchanging and sharing digital data with compatible products, such as digital cameras, mobile phones and other devices. Because it is removable, it can be used for external data storage.

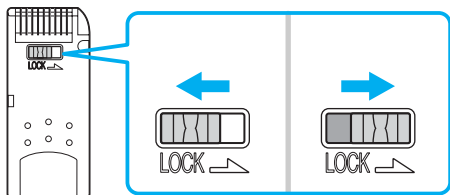
For the latest information on Memory Stick media, visit the Sony online support Web site at <http://esupport.sony.com/EN/VAIO/> for customers in USA, at <http://www.sony.ca/support> for customers in Canada, or at <http://esupport.sony.com/ES/> for customers in Latin American countries or areas.

! Your computer has been tested and found compatible with the Sony branded Memory Stick media with capacity of up to 4 GB that are available as of January 2006. However, not all Memory Stick media that meet the same conditions as the compatible media are guaranteed of compatibility.

Write-protecting a Memory Stick Media

Some versions of Memory Stick media are designed with an erasure prevention switch to protect valuable data from accidental erasure or overwriting.

Move the tab horizontally or vertically* to set or release write-protection. When the erasure prevention switch is off, data can be saved on the Memory Stick media. When the erasure prevention switch is on, data can be read from but not saved on the Memory Stick media.



* Some versions of Memory Stick media do not have an erasure prevention switch.

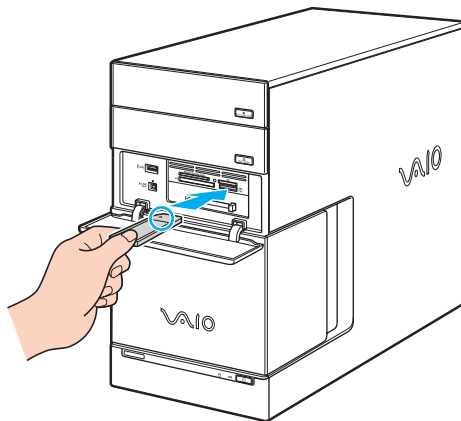
Inserting a Memory Stick Media

The Memory Stick PRO/Duo media slot is located behind a protective cover on the front of the computer. You need to open the cover before accessing the memory card slots.

To insert a Memory Stick media

- 1 Flip the upper front panel down, using your fingertip.
- 2 Locate the Memory Stick PRO/Duo media slot.
- 3 Hold the Memory Stick media with the arrow facing toward the front of the computer and insert it into the Memory Stick PRO/Duo media slot in the direction of the arrow.
- 4 Carefully slide the Memory Stick media into the slot until it clicks into place.

The Memory Stick media is automatically detected by your system and appears in your **My Computer** window as a local drive, under the appropriate letter (depending on the configuration of the computer).






Be sure to hold the Memory Stick media with the arrow pointing in the correct direction as you insert it into the slot. To avoid damaging the computer or the Memory Stick media, do not force the Memory Stick media into the slot if you cannot insert it smoothly.

Do not insert more than one Memory Stick media into the slot. Inserting the media improperly may damage the computer.



The computer supports Memory Stick Duo media and is equipped with the Memory Stick combo slot that is compatible with both standard- and duo-size media. For more information on Memory Stick Duo media, visit the Memory Stick web site at <http://www.memorystick.com/en/>.

To view the contents of the Memory Stick media

- 1 Click **Start** and then **My Computer** to open the **My Computer** window.
- 2 Double-click the Memory Stick media icon  to view the list of data files saved in the Memory Stick media.

To format a Memory Stick media

Use the **Memory Stick Formatter** software. See the help file on the **Memory Stick Formatter** software for details.

Removing a Memory Stick Media

To remove a Memory Stick media

- 1 Flip the upper front panel down, using your fingertip.
- 2 Check that the Media Access indicator is off.
- 3 Push the Memory Stick media in toward the computer.
The Memory Stick media ejects.
- 4 Pull the Memory Stick media out of the slot.

! Always remove the Memory Stick media gently, or it may pop out unexpectedly.

Do not remove the Memory Stick media while the Media Access indicator is turned on. If you do, you may lose data. Large volumes of data may take time to load, so be sure the indicator is off before removing the Memory Stick media.

Using Other Memory Cards

In addition to the Memory Stick PRO/Duo media slot, your computer is equipped with three other memory card slots to accommodate many popular types of memory cards. You can use these slots to transfer data among digital cameras, camcorders, music players, and other audio/video devices.

The memory card slots are located behind a protective cover on the front of the computer. You need to open the cover before accessing the memory card slots.

Before You Use Memory Cards

The memory card slots on your computer support the following memory cards:

- ☐ **CF** (CompactFlash) memory card slot
 - ☐ CompactFlash
 - ☐ Microdrive
- ☐ **SD** memory card slot
 - ☐ Secure Digital (SD)
 - ☐ MultiMediaCard (MMC)
- ☐ **SM/xD-Picture Card** slot
 - ☐ SmartMedia
 - ☐ xD-PictureCards

For the latest information on compatible memory cards, visit the Sony online support Web site regularly.



Always insert the correct memory card into the appropriate memory card slot.

Do not attempt to insert a different memory card or memory card adapter into a different memory card slot. An incompatible memory card or adapter may be difficult to remove from the wrong slot and can cause damage to your computer.

Use care when inserting or removing a memory card from the slot. Do not force the memory card in or out of the slot.

The **CF** (CompactFlash) memory card slot on your computer supports Type I and Type II media.

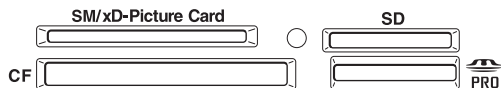
The **SD** memory card slot on your computer does not support the high-speed data transfer feature of the SD memory card.

Your computer has been tested and found compatible only with major memory card media available as of January 2006. However, not all memory card media that meet the same conditions as the compatible media are guaranteed of compatibility.

Inserting a Memory Card

To insert a memory card

- 1 Flip the upper front panel down, using your fingertip.
Do not use force to open the cover.
- 2 Locate the appropriate slot for the memory card you want to use.



- 3 Hold the memory card with the arrow facing up and pointing toward the memory card slot.
- 4 Carefully slide the memory card into the slot until it clicks into place.
Do not force the card into the slot.



If the memory card does not go into the slot easily, remove it gently and verify you are inserting it in the proper direction.

Removing a Memory Card

The correct way to remove a memory card from a memory card slot varies, depending on the media or slot. Use care when removing a memory card to avoid damage to the slot or card.

! Do not remove a memory card while the Media Access indicator light is on. The card or its data may become damaged.

To remove a Secure Digital (SD), MultiMediaCard, SmartMedia, or xD-Picture Card media

- 1 Flip the upper front panel down, using your fingertip.
- 2 Check that the Media Access indicator is off.
- 3 Press the extended part of the memory card, causing it to extend out from the slot.
- 4 When the card extends, carefully pull it out of the slot.

To remove a CompactFlash media

- 1 Flip the upper front panel down, using your fingertip.
- 2 Check that the Media Access indicator is off.
- 3 Firmly grasp the extended part of the memory card.
- 4 Carefully pull it out of the slot.

Using the Internet

Setting Up a Dial-up Internet Connection

Before you can connect to the Internet, you need to connect your computer to a telephone line with a telephone cable (not supplied). Once you have set up your telephone cable connection, you're ready to connect to the Internet.

For details of telephone cable connections, see **Connecting the Telephone and Modem** ([page 22](#)).

To set up a dial-up connection to the Internet

- 1 Click **Start**, point to **All Programs, Accessories, Communications**, and click **New Connection Wizard**.
The **New Connection Wizard** appears.
- 2 Click **Next**. If the **Location Information** window appears, follow the on-screen instructions.
- 3 If it is not already selected, click to select **Connect to the Internet**, and click **Next**.
- 4 Follow the on-screen instructions.

Using Peripheral Devices


You can add functionality to your computer by using the various ports on the computer.

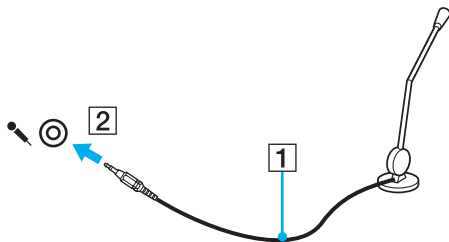
- ❑ **Connecting an External Microphone** ([page 73](#))
- ❑ **Connecting a VCR or Camcorder** ([page 74](#))
- ❑ **Connecting a Universal Serial Bus (USB) Device** ([page 76](#))
- ❑ **Connecting a Printer** ([page 78](#))
- ❑ **Connecting an i.LINK Device** ([page 80](#))
- ❑ **Connecting to a Network (LAN)** ([page 82](#))

Connecting an External Microphone

If you need to use a sound input device (for example, to chat over the Internet) you need to plug in an external microphone.

To connect an external microphone

Plug the microphone cable (1) into the microphone jack (2) .



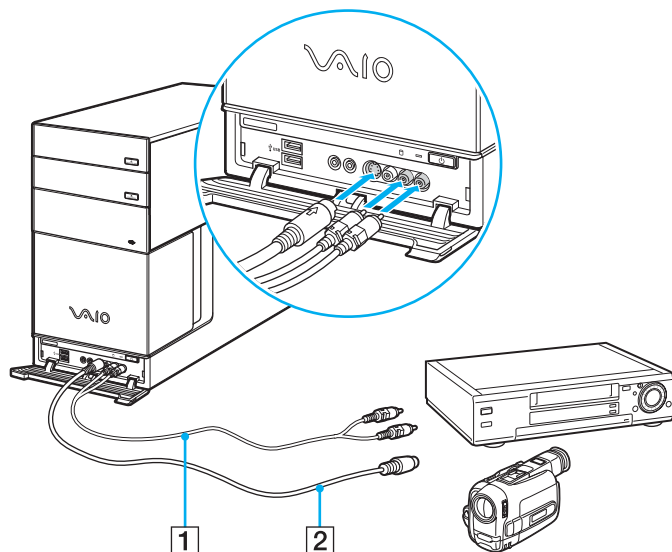
Make sure your microphone is designed for computer use.

Connecting a VCR or Camcorder

Your computer has both audio and video connection capabilities. You can locate the appropriate jacks and ports on the back of the computer or behind the lower bottom panel on the front. You can connect a VCR or camcorder using the Composite Audio In jacks. Your VCR or camcorder may have either standard video or S Video connection capability.

To connect a VCR or camcorder with an audio and an S-Video cable

- 1 Connect a dual audio cable (1) (not supplied) to the Composite Audio In (L/R) jacks on the computer.
- 2 Connect the other ends of the dual audio cable to your VCR or camcorder.
- 3 Connect an S-Video cable (2) (not supplied) directly into the **S VIDEO** (S Video) In port on the computer.
- 4 Connect the other end of the S-Video cable into the appropriate port on the VCR or camcorder.



To connect a VCR or camcorder with a stereo A/V dubbing cable


- 1 Connect a stereo A/V dubbing cable with triple RCA plugs at each end (not supplied) directly into the Composite Video In jack, and the Composite Audio In (L/R) jacks on the computer.
- 2 Connect the other ends of the stereo A/V dubbing cable into the appropriate jacks on the VCR or camcorder.

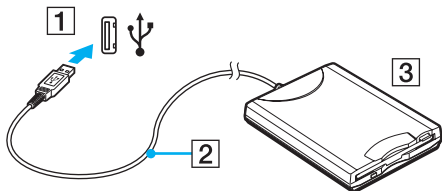
Connecting a Universal Serial Bus (USB) Device

Connecting a USB Floppy Disk Drive

You can purchase a USB floppy disk drive and connect it to your computer.

To connect a USB floppy disk drive

- 1 Choose the USB port (1)  you prefer to use.
- 2 Plug the USB floppy disk drive cable (2) into the USB port.
Your USB floppy disk drive (3) is now ready for use.



! When using a USB floppy disk drive, do not apply force on the USB port. This may cause a malfunction.

Disconnecting a USB floppy disk drive

You can disconnect a USB floppy disk drive when the computer is on or off. Disconnecting the drive when the computer is in a power saving mode (Standby or Hibernate) may cause the computer to malfunction.

If the computer is off, you can unplug the USB cable directly from the computer.

To disconnect a USB floppy disk drive

- 1 Close all programs accessing the floppy disk drive.
- 2 Double-click the **Safely Remove Hardware** icon on the taskbar.
The **Safely Remove Hardware** window appears.
- 3 Select the floppy disk drive you want to unplug.
- 4 Click **Stop**.
The **Stop a Hardware device** window appears.
- 5 Make sure the floppy disk drive is selected, and click **OK**.
A message appears stating it is now safe to remove the hardware device.
- 6 Click **Close** to close the **Safely Remove Hardware** window.
- 7 Disconnect the floppy disk drive from the computer.

Connecting a Printer

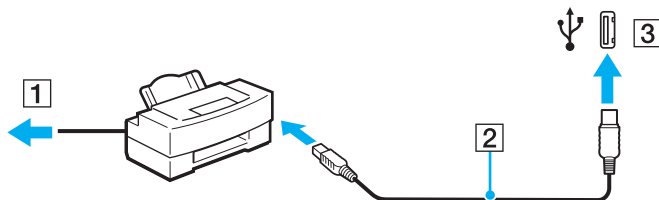
You can connect a Windows-compatible printer to your computer to print documents.

Connecting a Printer Using the USB Port

You can connect a USB printer compatible with your version of Windows to the computer.


To connect a printer using the USB port

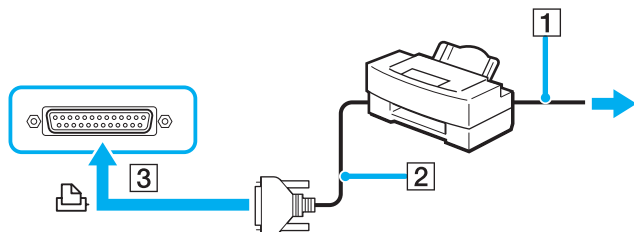
- 1 Plug the printer power cord into an AC outlet (1).
- 2 Choose the USB port (3) you prefer to use.
- 3 Plug one end of a USB printer cable (2) into the USB port and the other end to your printer.



Connecting a Printer Using the Printer Port

To connect a printer using the printer port

- 1 Plug the printer power cord (1) into an AC outlet.
- 2 Plug the printer cable (2) supplied with your printer into the printer port (3)  on the back of the computer.



Before connecting the printer, turn off the computer and the printer, and unplug the AC adapter and the power cord.

Connecting an i.LINK Device

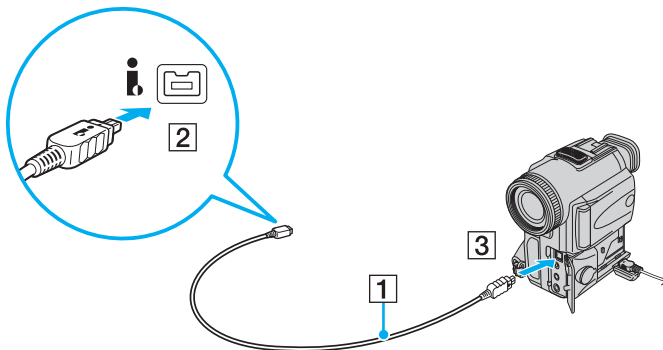
Notes on connecting i.LINK devices

- ❑ Your computer is equipped with an i.LINK port, which you can use to connect to an i.LINK device such as a digital video camcorder or to connect two VAIO computers in order to copy, delete or edit files.
- ❑ The computer is equipped with a 4-pin and a 6-pin i.LINK port. A 4-pin i.LINK port cannot supply power to a connected i.LINK device. A 6-pin i.LINK port can supply power (10V to 12V) to a connected i.LINK device, if the device is equipped with a 6-pin connector. The total power supplied by the 6-pin i.LINK port does not exceed 6 watts.
- ❑ The i.LINK port supports transfer rates up to 400 Mbps; however, the actual transfer rate depends on the transfer rate of the external device.
- ❑ i.LINK cables compatible with the computer include cables with the following part numbers:
VMC-IL4415 (a 1.5 meter cable with a 4-pin connector at each end), VMC-IL4408 Series (a 0.8 meter cable with a 4-pin connector at each end).
- ❑ The optional i.LINK cables may not be available, depending on the country or area of your residency.
- ❑ An i.LINK connection with other compatible devices is not fully guaranteed.
- ❑ The i.LINK connection varies depending on the software applications, operating system and i.LINK compatible devices you use. See the manual that came with your software for more information.
- ❑ Check the working conditions and OS compatibility of i.LINK-compatible PC peripherals (for example, an HDD or CD-RW drive) before you connect them to the computer.

Connecting a Digital Video Camcorder

To connect a digital video camcorder

- 1 Plug one end of the i.LINK cable (1) (not supplied) into the i.LINK port (2) on the computer and the other end into the DV In/Out ports (3) on the digital video camcorder.
- 2 Launch the **DVgate Plus** software.



On Sony digital video cameras, ports labeled **DV Out**, **DV In/Out** or **i.LINK** are i.LINK-compatible.


The Sony digital video camcorder shown here is an example; your digital video camcorder may need to be connected differently.

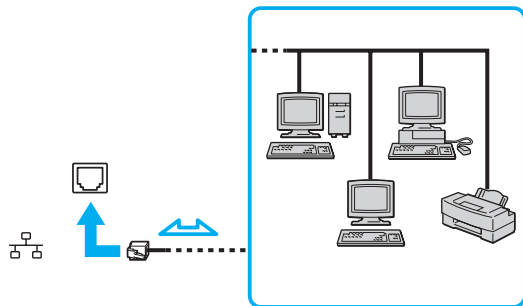
You cannot access the pictures stored on a Memory Stick media when using an i.LINK connection.

Connecting to a Network (LAN)

You can connect your computer to 1000BASE-T/100BASE-TX/10BASE-T-type networks with an Ethernet network cable. Connect one end of a network cable (not supplied) to the network (Ethernet) port on the back of the computer and the other end to your network. For detailed settings and devices needed to connect to the network, see your network administrator.

!

Your computer has a protective sticker  covering the network (Ethernet) port located on the back of the computer. Connect a 10BASE-T, 100BASE-TX, or 1000BASE-T cable to the network (Ethernet) port. Using an incorrect cable or a phone cable may result in an electric current overload that can cause a malfunction, excessive heat, or fire in the network (Ethernet) port. For help on connecting to a network, see your network administrator.



The computer can be connected to the network with the default settings.

! Telephone lines cannot be connected to the network (LAN) connector on your computer.
If the network (LAN) connector is connected to the telephone lines mentioned below, high electric current to the connector may cause damage, overheating or fire.

- Home (intercom speakerphone) or business-use telephone lines (multi-line business telephone)
- Public telephone subscriber line
- PBX (private branch exchange)

! Do not plug a telephone cable into the network port.

Customizing Your VAIO Computer

This section briefly describes how to change the main settings of your computer. Among other things, you will learn how to use and customize the look of your Sony software and utilities, etc.

- ❑ **Setting the Password** ([page 85](#))
- ❑ **Setting Up Your Computer with VAIO Central** ([page 88](#))
- ❑ **Using the Power Saving Modes** ([page 89](#))

Setting the Password

Use one of the BIOS functions to set the password.

Once you have set the password, you will have to enter the password after the VAIO logo appears to start your computer. The power-on password will allow you to protect your computer from unauthorized access.

Adding the Power-on Password

The power-on password is provided to protect your computer from unauthorized access.

There are two types of the power-on password: machine password and user password. The machine password is provided for users with administrator rights on the computer to change all the setup options on the BIOS setup screen, as well as to start the computer. The user password is provided for other ordinary users to allow for changing some of the BIOS setup options, as well as starting the computer. To set the user password, you must first set the machine password.

! Once you have set the power-on password, you cannot start the computer without entering the password. Make sure not to forget the password. Write down your password and keep it safe and private from other people.

If you forget the power-on password and need assistance to reset it, a password reset fee will be charged, and your computer may need to be sent in for depot service for password reset.

To add the power-on password

- 1 Turn on the computer.
- 2 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
- 3 Press the ◀ or ▶ key to select **Security** on the **Boot** menu to display another screen.
- 4 Press the ◀ or ▶ key to select the password type that you want to add (**Set Supervisor Password** or **Set User Password**) and press the **Enter** key.
- 5 At the new password entry prompt, enter a new password and press the **Enter** key.
The password needs to be at least 6 and at most 19 characters long.
- 6 At the confirmation prompt, enter the same password once again and press the **Enter** key.
The password type you selected in step 4 should now be indicated as **Installed**.

Changing/Removing the Power-on Password

To remove the power-on password

- 1 Turn on the computer.
- 2 Press the **F2** key when the VAIO logo appears.
- 3 Enter the current password for **Enter Current Password** and press the **Enter** key.
The BIOS setup screen appears.
- 4 Press the **←** or **→** key to select **Security** on the **Boot** menu to display another screen.
- 5 Press the **←** or **→** key to select the password type that you want to remove and press the **Enter** key.
- 6 At the new password entry prompt, press the **Enter** key without an entry.
- 7 At the confirmation prompt, press the **Enter** key once again.
The password type you selected in step 5 should now be indicated as **Not Installed**.

To change the power-on password

Remove the current password and then follow the procedure described in **Adding the Power-on Password** ([page 86](#)) to add a new password.

Setting Up Your Computer with VAIO Central

The **VAIO Central** utility allows you to consult system information and specify preferences for system behavior.

To use VAIO Central

- 1 Click **Start**, point to **All Programs**, and click **VAIO Central**.
The **VAIO Central** window appears.
- 2 Select the desired control item and change the settings.
- 3 Once finished, click **OK**.
The setting of the desired item has been changed.



Some of the control items will not be visible if you open **VAIO Central** as a limited user.

Using the Power Saving Modes

In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: Standby and Hibernate.

To set the timer for the computer to automatically enter Standby or Hibernate mode after a certain amount of time, click **Start** and **Control Panel**. Click **Performance and Maintenance** and **Power Options**, and then change the settings under **Power Schemes**.

Using Normal Mode

This is the normal state of the computer when it is in use. To save power while not working, you can turn off a specific device such as the computer screen or the hard disk.

Using Standby Mode

Standby mode turns off the computer screen and sets the hard disk and the CPU to a low power consumption mode. The orange Standby indicator light illuminates in this mode.

To activate Standby mode

- 1 Click **Start** and then **Turn Off Computer**.
- 2 Click **Stand By**.



Alternatively, you can press the Standby button on the keyboard to put the computer in Standby mode.

To return to Normal mode

Press any key.



If you press the power button for more than four seconds, the computer will turn off automatically. You will lose any unsaved data.



When the computer is in Standby mode, you cannot insert a disc.

The computer comes out of Standby mode quicker than out of Hibernate mode.

Standby mode uses more power than Hibernate mode.

If the computer is not used for more than 20 minutes, it will enter Standby mode. To avoid this, you can change the Standby mode settings.

Using Hibernate Mode

In Hibernate mode, the state of the system is saved on the hard disk and power is turned off. The VAIO power indicator is off in this mode.

To activate Hibernate mode

- 1 Click **Start** and then **Turn Off Computer**.
- 2 Click **Hibernate**.

To return to Normal mode

Press the power button to turn on the computer.

The computer returns to its previous state.



If you press the power button for more than four seconds, the computer will turn off automatically.



If you do not use the computer for a long period of time, put the computer into Hibernate mode. This power saving mode saves you the time of shutting down or resuming.

When the computer is in Hibernate mode, you cannot insert a disc.

Hibernate mode requires more time than Standby mode to be activated.

It takes more time to return to Normal mode from Hibernate mode than from Standby mode.

Hibernate mode uses less power than Standby mode.



Do not move the computer until the VAIO power indicator turns off.

Upgrading Your VAIO Computer

Your computer and memory modules use high precision components and electronic connectors technology. To avoid the invalidation of your guarantee due to mishandling, we recommend that:

- ☐ You contact your dealer to install a new memory module.
- ☐ You do not install it yourself, if you are not familiar with upgrading memory on a computer.
- ☐ You do not touch the connectors on the memory module.

For the type of module and amount of memory installed on your model, see the online **Specifications**.

For assistance, contact an authorized Sony Service Center. To find the nearest center or agent, visit the Sony online support Web site.

- ☐ **Before Upgrading Your Computer** ([page 93](#))
- ☐ **Opening and Closing the Computer** ([page 94](#))
- ☐ **Adding and Removing Memory** ([page 97](#))
- ☐ **Installing an Add-on Card** ([page 103](#))
- ☐ **Replacing the Lithium Battery** ([page 106](#))
- ☐ **Installing the Hard Disk Drive** ([page 108](#))
- ☐ **Installing the IDE Device** ([page 117](#))

Before Upgrading Your Computer

The upgrading procedures described in this section assume that you are familiar with the general terminology associated with personal computers, safety practices, required regulatory compliances, and the modification of electronic equipment.

Disconnect the computer from its power source and from telecommunications links, networks, or modems before you open the computer or follow any procedures in this section.



Failure to disconnect the computer from its power source may result in personal injury or equipment damage. Always turn the power off before you open the computer or connect peripheral equipment. Otherwise, damage may occur to the integrated circuits.

Your model may not be equipped with all of the hardware features mentioned in this section. The interior hardware configuration of the computer may vary from the illustrations, depending on the model you purchased.



You may need to temporarily remove add-on cards or other components that may be near the slot cover you plan to remove.



Electrostatic discharge (ESD) can damage disk drives, add-on cards, and other components. Follow the procedures described here only at an ESD workstation. If such a station is not available, do not work in a carpeted area and do not handle materials that produce or hold static electricity (for example, cellophane wrappers). Ground yourself by maintaining continuous contact with an unpainted metal portion of the chassis while performing the procedure.

Opening and Closing the Computer

When you access memory modules, add-on cards, and the lithium battery inside your computer, you need to remove and replace the side panel beforehand and afterward.

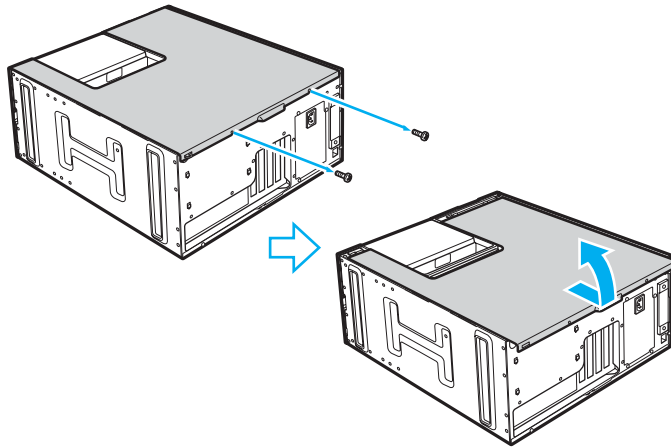
Opening the Computer



If you remove the side panel immediately after you shut down the computer, the internal components may be too hot to touch. Wait about one hour to let the components cool down before you attempt to remove the panel.

To remove the side panel

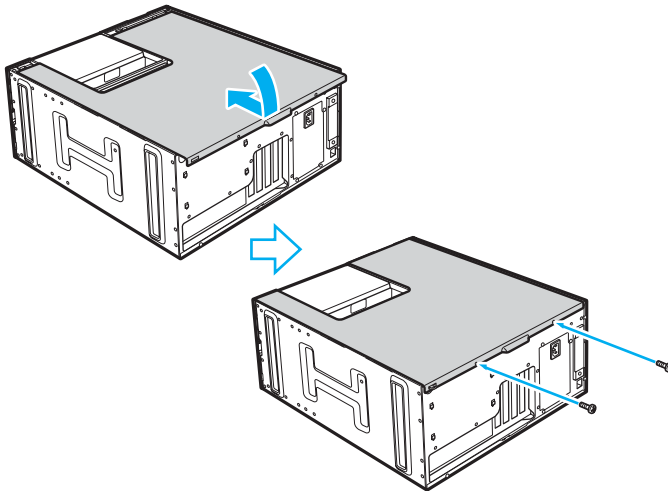
- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect any peripheral devices.
- 3 Place the computer on its left side.
- 4 Unscrew the two screws on the back of the computer.
- 5 Slide the side panel toward the back of the computer, lift the panel, and set it aside.



Closing the Computer

To replace the side panel

- 1 Insert the tabs on the bottom of the side panel diagonally into the tracks on the bottom edge of the chassis frame.
- 2 Slide the side panel toward the front of the computer.
- 3 Tighten the two screws on the back of the computer to secure the side panel.



Adding and Removing Memory

If you want to expand the functionality of your computer, you can increase the memory by installing optional memory modules. Before you upgrade your computer's memory, read the notes and procedures in this section. The number of available slots depends on your computer's hardware configuration.

Notes on adding/removing memory modules

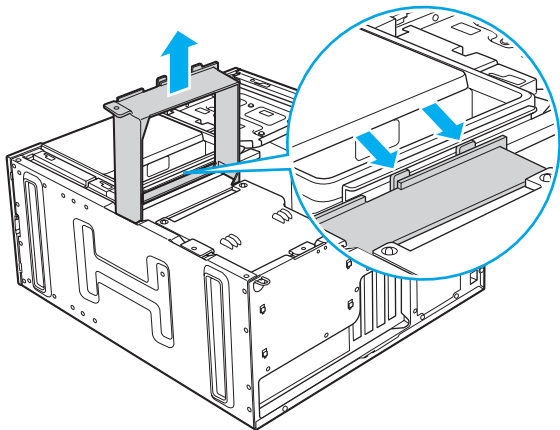
- ❑ Be careful when changing memory. Improper installation of memory modules may cause damage to your system. This damage may void your manufacturer's warranty.
- ❑ Only use memory modules that are compatible with the computer. If a memory module is not detected by the computer or Windows becomes unstable, contact your sales dealer or the manufacturer of your memory module.
- ❑ Electrostatic discharge can damage electronic components. Before touching a memory module, ensure the following:
 - ❑ The procedures described in this document assume familiarity with the general terminology associated with personal computers and with the safety practices and regulatory compliance required for using and modifying electronic equipment.
 - ❑ Turn off the computer and disconnect the system from its power source and from any telecommunication links, networks, or modems before you open the computer. Failure to do so may result in personal injury or equipment damage.
 - ❑ Electrostatic Discharge (ESD) can damage memory modules and other components. Install the memory module only at an ESD workstation. If such a station is not available, do not work in a carpeted area, and do not handle materials that produce or hold static electricity (cellophane wrappers, for example). Ground yourself by maintaining contact with an unpainted metal portion of the chassis while performing the procedure.
 - ❑ Do not open the memory module package until you are ready to change the module. The package protects the module from ESD.

- ☐ Use the special bag delivered with the memory module or wrap the module in aluminum foil to protect it from electrostatic discharge.
- ☐ Introducing any liquids or any foreign substances or objects into the memory slots, or other internal components of the computer, will result in damage to the computer and any repair costs will not be covered by the warranty.
- ☐ Do not place the memory module in places subject to:
 - ☐ Heat sources such as radiators or air ducts
 - ☐ Direct sunlight
 - ☐ Excessive dust
 - ☐ Mechanical vibration or shock
 - ☐ Strong magnets or speakers that are not magnetically shielded
 - ☐ Ambient temperature of more than 95°F (35°C) or less than 41°F (5°C)
 - ☐ High humidity
- ☐ Handle the memory module with care. To avoid injuries to your hands and fingers, do not touch the edges of the components and circuit boards inside the computer.

Removing and Installing a Memory Module

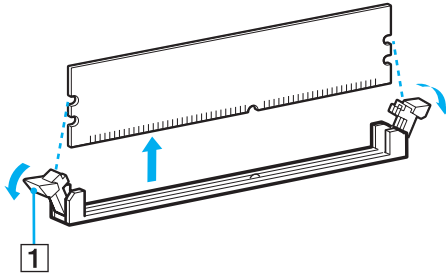
To change or add a memory module

- 1 Remove the side panel.
See **Opening the Computer** (page 94) for the detailed instructions.
- 2 Push the tabs on the bracket and lift the bracket out of the computer.

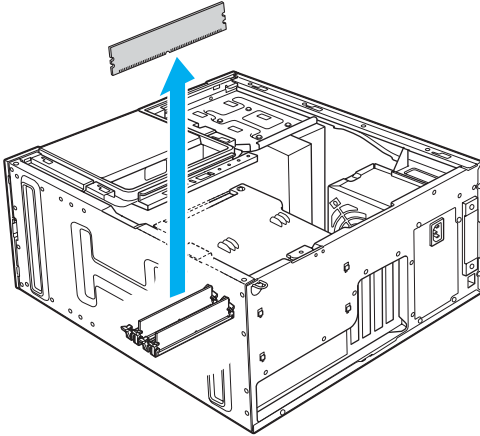


- 3 Touch a metal object (such as the chassis frame) to discharge static electricity.
- 4 Locate the memory module(s) you wish to remove.

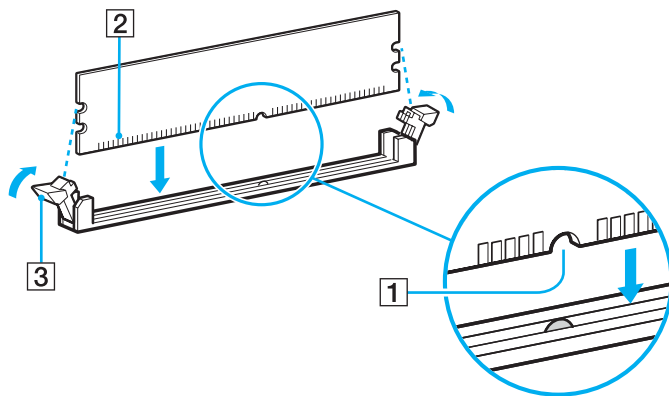
- 5 Push down on the latches (1), located on both sides of the module, to gently eject it from the slot.



- 6 Grasp the memory module by the sides and remove from the computer. Store the module in a static-free bag.



- 7 Remove the memory module from its anti-static package, handling it by the edges.
- 8 Locate the center notch (1) on the bottom edge of the memory module and align it to the center bump in the open module slot.
- 9 Firmly insert the lower edge of the module (2) into the slot by pressing down evenly against the module's upper corners.
- 10 The side latches (3) snap into position, holding the memory module in place.



! To avoid damaging a memory module or the memory module slot, move the side latches slightly outward to relieve pressure.

- 11 Replace the bracket and tighten the screws.
- 12 Replace the side panel.
See **Closing the Computer** (page 96) for the detailed instructions.

Viewing the Amount of Memory

To view the amount of memory

- 1 Turn on the computer.
- 2 Click **Start**, point to **All Programs**, and click **VAIO Central**.
- 3 Click the **System Information** tab in the **VAIO Central** window.
- 4 Double-click the **System Information** folder.
- 5 Double-click the **System Information** icon.

You can view the amount of system memory. If the additional memory does not appear, repeat the whole procedure and restart the computer.

Installing an Add-on Card

Your computer may have one or more open expansion slots depending on the model configuration. An expansion slot enables you to install add-on cards to expand the functionality of your computer. The length of the add-on card should not exceed 9.05 inches.



Add-on card configuration varies by model. Some models, such as Configure-to-Order (CTO) computers, may have all expansion slots filled.

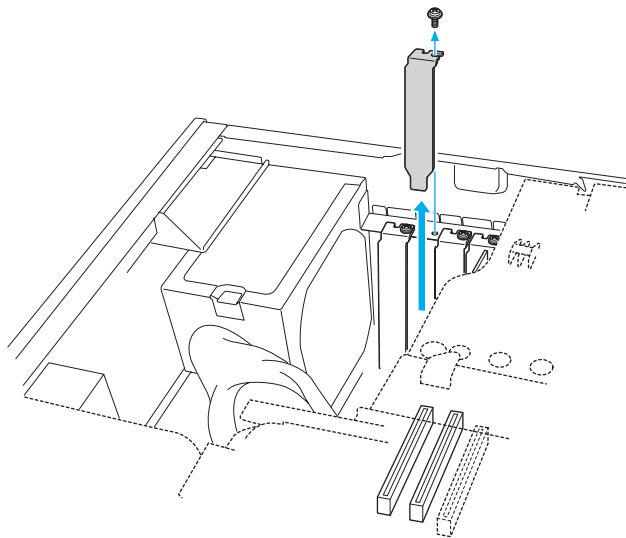


Observe the proper safety precautions when you add cards to your Sony computer. See **Before Upgrading Your Computer** (page 93).

To install an add-on card

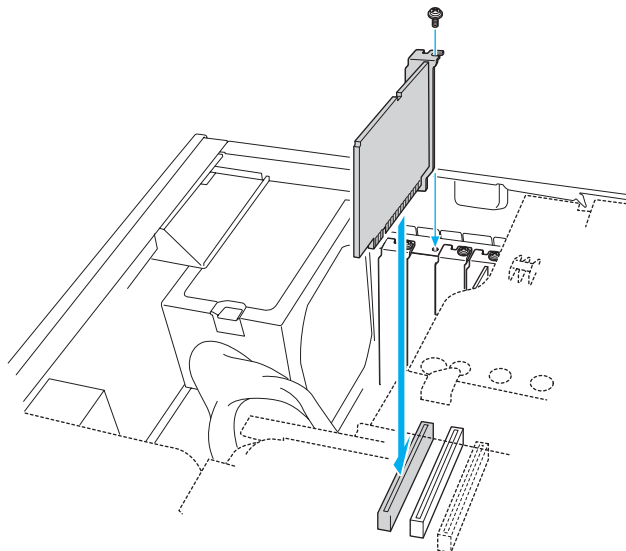
- 1 Remove the side panel.
See **Opening the Computer** (page 94) for the detailed instructions.

- 2 Locate an available expansion slot. Remove the slot cover's screw, and then remove the slot cover.



! When removing a slot cover, be careful not to damage components on the system board or add-on cards. You may need to temporarily remove add-on cards or other components that may be next to the slot cover you want to remove.

- 3 Insert the add-on card into the expansion slot and secure it with the screw from the expansion slot cover.



- 4 Replace the side panel.
See **Closing the Computer** ([page 96](#)) for the detailed instructions.

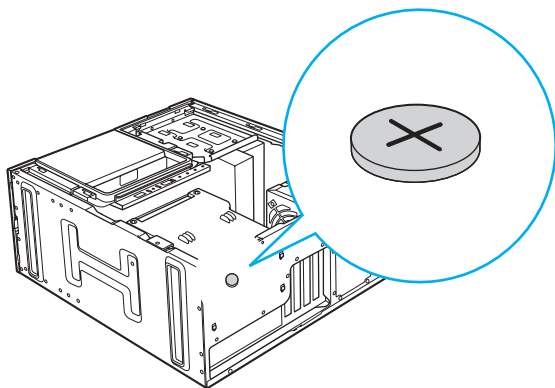
Replacing the Lithium Battery

The lithium battery starts to weaken after several years and the system settings, such as the date and time stored in CMOS RAM, may become inaccurate. Replace the lithium battery when this occurs.

! There is danger of the battery exploding if it is replaced incorrectly. Replace the battery only with a CR2032-type lithium battery.

To replace the lithium battery

- 1 Write down any changes you may have made to the settings in the BIOS Setup utility.
- 2 Remove the side panel.
See **Opening the Computer** (page 94) for the detailed instructions.
- 3 If necessary, remove any cables, add-on cards, or other components to access the lithium battery.
- 4 Remove the old battery and install the new battery with the plus (+) side facing up.



- 5 Replace the side panel.

See **Closing the Computer** (page 96) for the detailed instructions.

The values stored in the CMOS memory are now reset to the factory default values. Run the Setup utility to reset the date, time, passwords, and other changes you may have made to the BIOS settings. If you do not wish to customize your BIOS settings, do not run the Setup utility.



Dispose of the lithium battery properly. In some areas, the disposal of lithium batteries in household or business trash may be prohibited. You can return your unwanted lithium batteries to your nearest Sony Service Center or Factory Service Center. To locate a Service Center near you, visit the Sony online support Web site.

Resetting the Computer's Date and Time

To reset the computer's date and time

- 1 Double-click the time readout displayed on the taskbar.
The **Date and Time Properties** window appears.
- 2 From the **Date & Time** tab, change the settings as desired.
- 3 Click **Apply**.
- 4 Click **OK**.

Installing the Hard Disk Drive

Your computer may be equipped with open internal bays to hold additional 3.5-inch hard disk drives. See the online **Specifications** for details about the installed hard disk drive.

Review the manufacturer's information provided with your new hard disk drive before attempting to install it in the computer.



Certain models may already have additional hard disk drives installed that support the Redundant Array of Independent Disks (RAID) technology.

The installation information provided in this section may not apply if you have purchased a model that supports RAID.

Replacing the Original Hard Disk Drive

If you replace the original, factory-installed hard disk drive, you may need to correct the drive mapping, and/or create a VAIO Recovery Media Kit. Visit the Sony online support Web site for more information.

About drive mapping

When a new hard disk drive is installed, the original drive mapping^{*} may be changed. The identified drives, including those for removable media, may not reflect correct drive/icon associations. For more information on how to correct the drive mapping, visit the Sony online support Web site.

^{*} Drive mapping refers to the assignment of an identifying letter to a specific drive, such as Drive C or Drive D which identifies the original hard disk drive.

About hard disk drive recovery

When you replace the original hard disk drive, the preinstalled **VAIO Recovery** utility cannot restore the drive partitions, operating system, or original software programs. Before replacing the hard disk drive, create a VAIO Recovery Media Kit or purchase a kit from Sony.



System or Application Recovery CDs are not supplied with your computer. Use the **VAIO Recovery** utility to restore the computer's operating system and preinstalled software programs.

To start the VAIO Recovery utility

- 1 Click **Start** and point to **All Programs** and **VAIO Recovery**.
- 2 Click **VAIO Recovery**.

! Observe the proper safety precautions when you upgrade your Sony computer. See **Before Upgrading Your Computer** ([page 93](#)).

Drive letter assignment

When a new hard disk drive is installed, an identifying drive letter is assigned. The drive letter assignment becomes effective after you register for the first time or after you recover your computer with the **VAIO Recovery** utility.

The **Click to DVD** software creates a new folder location on the new hard disk drive. This new folder is the default location to save files created with the **Click to DVD** software.

- ☐ If the Microsoft Windows operating system identifies the new hard disk drive as drive D, the **Click to DVD** software saves its files to a new folder on the new drive D.
- ☐ If the Windows operating system assigns another letter to the new hard disk drive, such as drive E or J, the **Click to DVD** software creates the new save folder on the new drive.



When you start the **Click to DVD** software for the first time, after recovering the computer or installing a new hard disk drive, the software automatically creates a new save folder on the new drive.

Notes on installing a new hard disk drive

- ☐ If the computer is equipped with a Serial ATA (SATA) hard disk drive, you do not need to configure the new drive.
- ☐ The instructions provided here do not apply, if you want to set up a RAID configuration.
- ☐ Follow the configuration instructions supplied with the new hard disk drive.

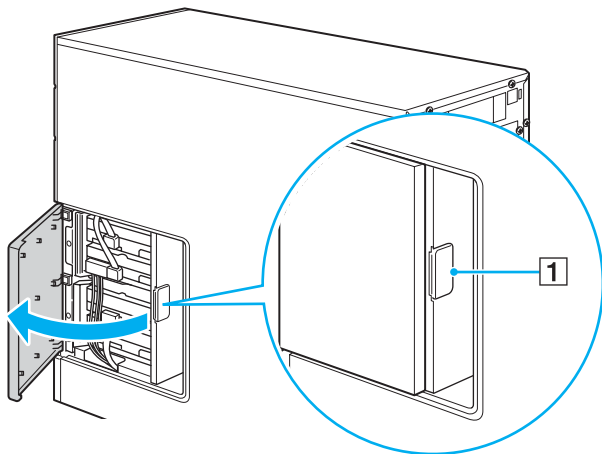
Installing an Additional Hard Disk Drive

You can install up to four SATA hard disk drives to the internal hard disk drive bay.

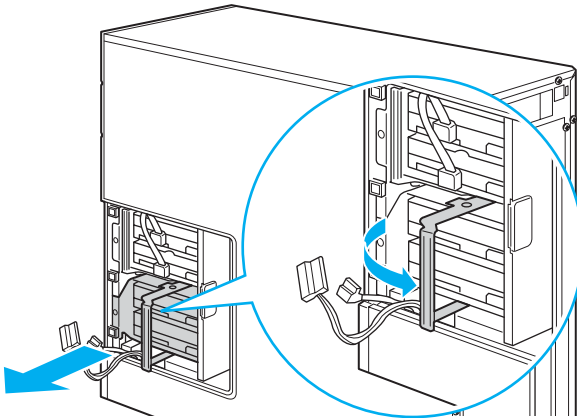
! If you remove the hard disk cover immediately after you shut down the computer, the internal components may be too hot to touch. Wait about one hour to let the components cool down before you attempt to remove the panel.

To install an additional hard disk drive

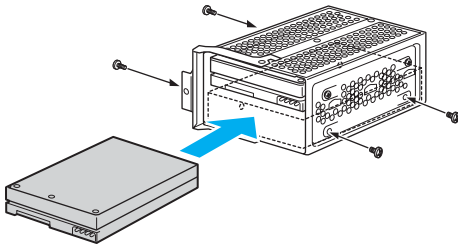
- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect any peripheral devices.
- 3 Push the button (1) to open the hard disk cover, remove the panel, and set it aside.



- 4 Detach the power and interface cables from the original hard disk drive that is preinstalled in the computer.
- 5 Pull the drive holder handle straight out from the chassis to unlock the drive holder.
- 6 Grasp the handle and slide the drive holder out.

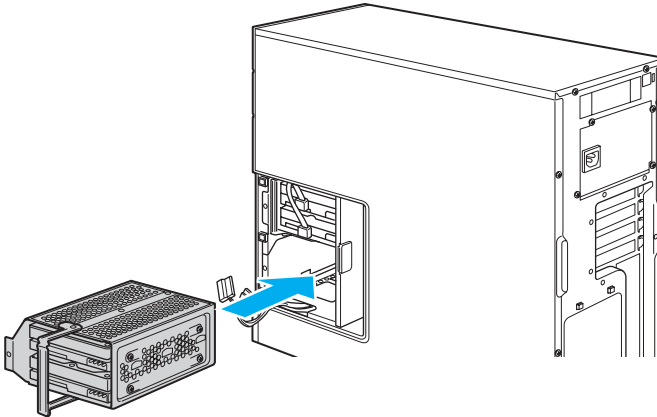


- 7 Slide a new drive into the drive holder and align the holes on each side of the drive bay.
- 8 Secure the drive to the drive holder with screws, through the holes on each side of the drive holder.



The new hard disk drive comes with the necessary screws. Do not overtighten these screws when securing the drive to the drive holder.

- 9 Align the drive holder with the tracks on the inside of the chassis. Slide the drive holder in completely.
- 10 Push the drive holder handle back to lock the drive into position.

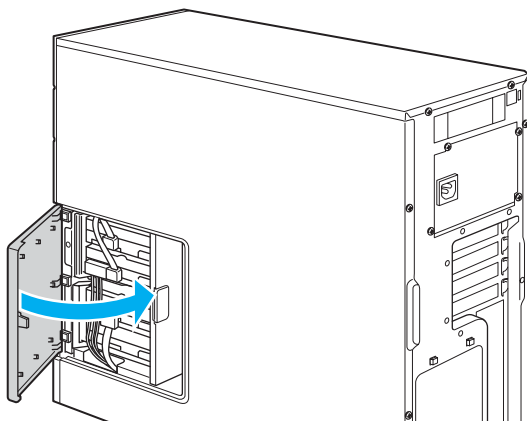


- 11 Connect the power connectors to the original and new hard disks.
- 12 Connect the internal SATA cables to the hard disks as follows:

Connect the internal SATA cables:	To the hard disks in:
Red PORT0 cable	Top drive bay
White PORT1 cable	2nd drive bay
Blue PORT2 cable	3rd drive bay
Orange PORT3 cable	Bottom drive bay

! Make sure to use the internal SATA cables. Commercially available SATA cables with the straight-head connector may be accidentally unplugged when you open or close the hard disk cover.

- 13 Replace the hard disk cover.



Identifying the Additional Hard Disk Space

When you initialize the new hard disk, it must be configured as an extended partition in Windows NT file system (NTFS) format.

To identify the additional hard disk space

- 1 Log on to Windows as a user with administrator rights.
- 2 Click **Start** and right-click **My Computer**.
- 3 Select **Manage** from the menu.
The **Computer Management** window appears.
- 4 Under the file directory on the right, double-click **Storage** and then **Disk Management**.
- 5 Right-click on the newly installed, unformatted hard disk (Disk label identified with red marking) and select **Initialize Disk** from the menu.
- 6 Click on the allocated area of the disk.
- 7 Right-click the area and select **New Partition** from the menu.
The **New Partition** wizard window appears.
- 8 Follow the on-screen instructions to complete the process.

The Windows XP operating system recognizes the new hard disk drive and applies the NTFS format.

Installing the IDE Device

Your computer may be equipped with open IDE device bays to hold 5-inch IDE devices. See the online **Specifications** for details about the installed IDE devices.

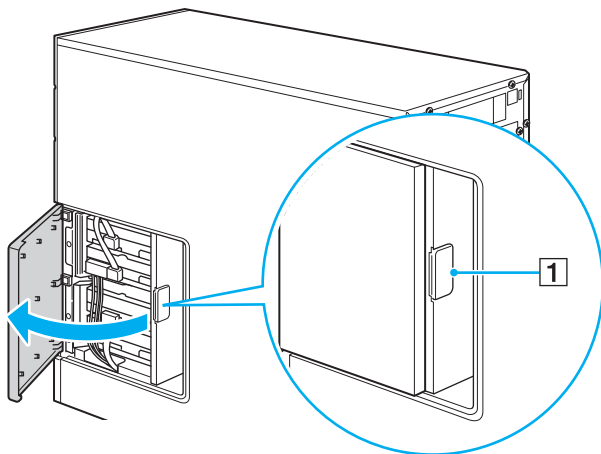
Notes on installing the IDE device

- ❑ Be careful when installing an IDE device. Improper installation of the device may cause damage to your system. This damage may void your manufacturer's warranty. If you have any questions about installing the IDE device, visit the Sony online support Web site.
- ❑ Keep any foreign objects, for example metal objects, out of the computer. If such an object enters and remains in the chassis when you install an IDE device, turning on the computer may cause fumes. Make sure to remove foreign objects, if any, and replace the covers and panels before you turn on the computer.
- ❑ Keep your hand away from electronic components on the internal boards of the computer. Some components are sensitive to external force and static electricity and easy to fail.
- ❑ Make sure to configure the IDE device as Slave. For detailed instructions, see the manual that came with your IDE device.
- ❑ Some IDE devices may not be compatible. Ask the dealer or manufacturer of your IDE device for compatibility with the VAIO computer.
- ❑ Installation of the IDE device must be carried out at your own risk. Sony Corporation assumes no liability for any defects of the computer arising out of your installation of the IDE device and a fee will be charged for such repair.

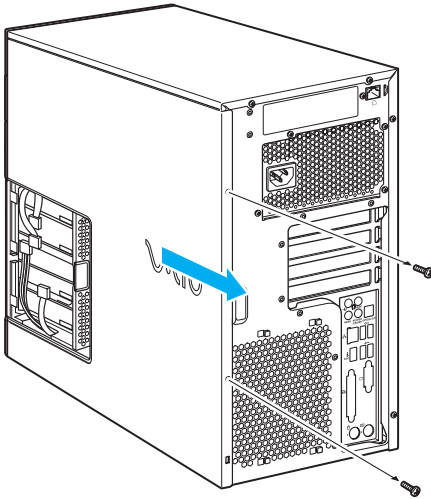
To install the IDE device

! If you remove the covers and panels immediately after you shut down the computer, the internal components may be too hot to touch. Wait about one hour to let the components cool down before you attempt to remove the panel.

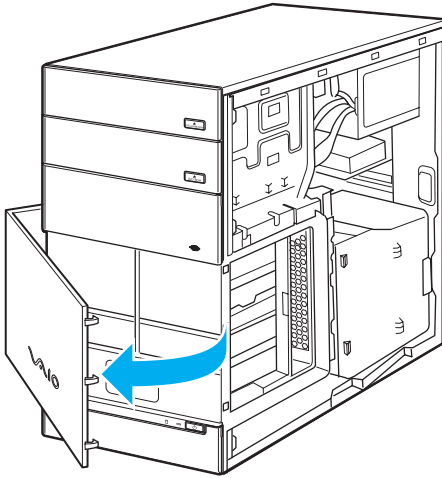
- 1 Shut down the computer and turn off all peripheral devices, such as a printer.
- 2 Unplug the computer and disconnect any peripheral devices.
- 3 Push the button (1) to open the hard disk cover, remove the cover, and set it aside.



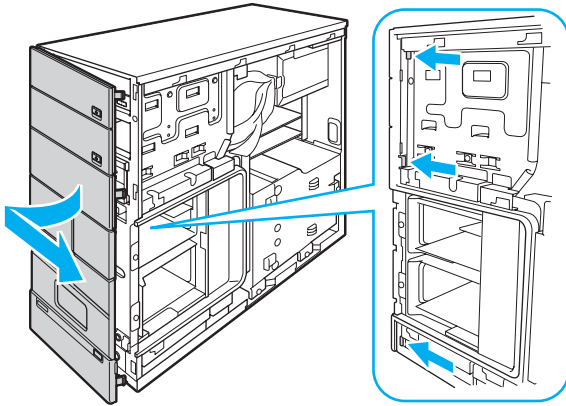
- 4 Unscrew the two screws on the back of the computer.
- 5 Slide the right side panel toward the back of the computer, remove the panel, and set it aside.



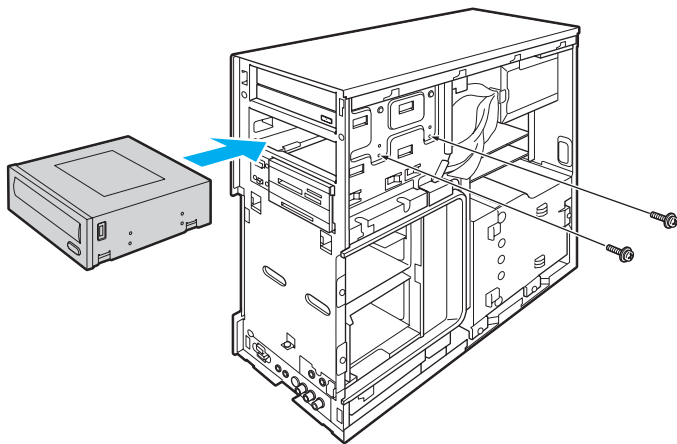
- 6 Remove the front cover and set it aside.



- 7 Disengage the three tabs on the back of the front panel, remove the panel, and set it aside.

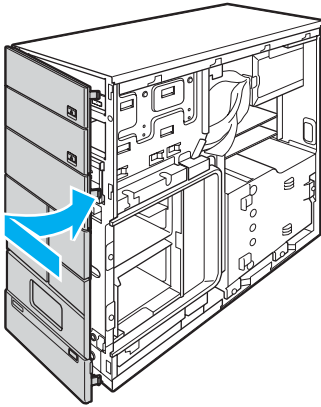


- 8 Slide an IDE drive into the IDE device bay and align the holes on each side of the device bay.
- 9 Secure the device to the bay with screws, through the holes on each side of the device bay.

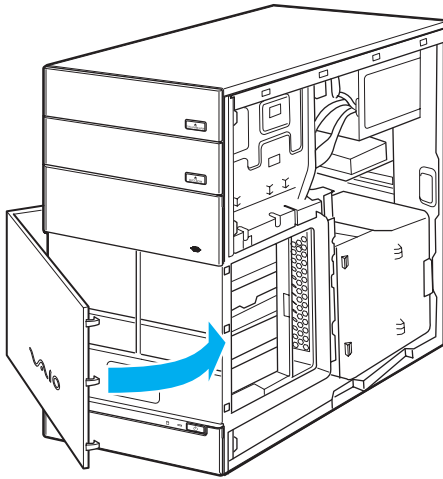


- 10 Connect the IDE and power cables to the IDE device

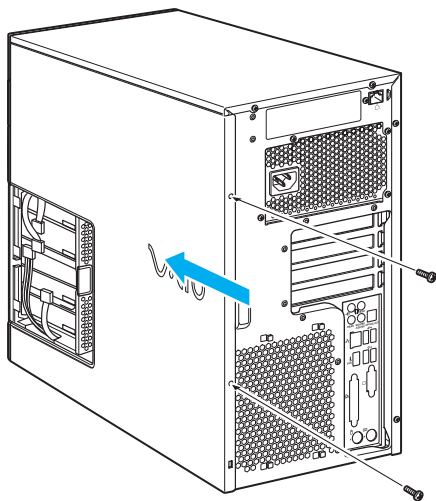
11 Replace the front panel.



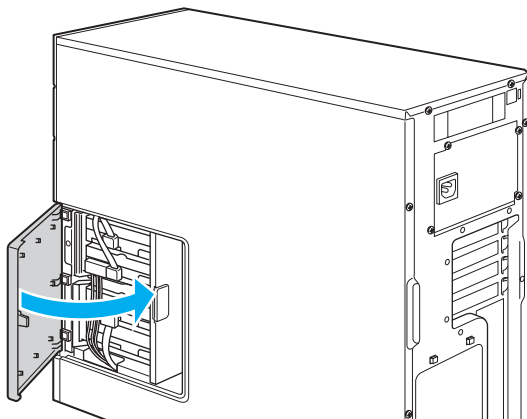
12 Replace the front cover.



- 13 Slide the right side panel toward the front of the computer.
- 14 Tighten the two screws on the back of the computer to secure the panel.



15 Replace the hard disk cover.



Precautions

This section describes safety guidelines and precautions to help you protect your computer from potential damage.

- ❑ **On Handling the LCD Screen** ([page 128](#))
- ❑ **On Using the Power Source** ([page 129](#))
- ❑ **On Handling Your Computer** ([page 130](#))
- ❑ **On Handling Floppy Disks** ([page 132](#))
- ❑ **On Handling Discs** ([page 133](#))
- ❑ **On Using Headphones** ([page 133](#))
- ❑ **On Handling Memory Stick Media** ([page 134](#))
- ❑ **On Handling the Hard Disk** ([page 135](#))

On Handling the LCD Screen

- ❑ Do not leave the LCD screen facing the sun. This could damage the LCD screen. Be careful when using the computer near a window.
- ❑ Do not scratch the LCD screen or exert pressure on it. This could cause a malfunction.
- ❑ Using the computer in low temperature conditions may produce a residual image on the LCD screen. This is not a malfunction. When the computer returns to normal temperature, the screen returns to normal.
- ❑ A residual image may appear on the LCD screen if the same image is displayed for a lengthy period of time. The residual image disappears in a while. You can use a screen saver to prevent residual images.
- ❑ The LCD screen becomes warm during operation. This is normal and does not indicate a malfunction.
- ❑ The LCD screen is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD screen. This is a normal result of the manufacturing process and does not indicate a malfunction.
- ❑ Avoid rubbing the LCD screen. This could damage the screen. Use a soft, dry cloth to wipe the LCD screen.

On Using the Power Source

- ❑ See the online **Specifications** to check the power operation of your model.
- ❑ Do not share the AC outlet with other power-consuming equipment, such as a photocopier or shredder.
- ❑ You can purchase a power strip with a surge protector. This device prevents damage to the computer caused by sudden power surges, in an electrical storm, for example.
- ❑ Do not place heavy objects on the power cord.
- ❑ To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- ❑ Unplug the computer from the AC outlet if you are planning to not use the computer for a long time.
- ❑ Make sure that the AC outlet is easily accessible.
- ❑ Use the power cord supplied with the computer or genuine Sony products. Do not use any other power cord as it may cause a malfunction.

On Handling Your Computer

- ❑ Clean the cabinet with a soft cloth, which is dry or lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of the computer.
- ❑ If you drop a solid object or any liquid onto the computer, shut down the computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it again.
- ❑ Do not drop the computer or place heavy objects on top of the computer.
- ❑ Do not place the computer in a location subject to:
 - ❑ Heat sources, such as radiators or air ducts
 - ❑ Direct sunlight
 - ❑ Excessive dust
 - ❑ Moisture or rain
 - ❑ Mechanical vibration or shock
 - ❑ Strong magnets or speakers that are not magnetically shielded
 - ❑ Ambient temperature of more than 95°F (35°C) or less than 41°F (5°C)
 - ❑ High humidity
- ❑ Do not place electronic equipment near the computer. The electromagnetic field of the computer may cause a malfunction.
- ❑ Provide adequate air circulation to prevent internal heat from building up. Do not place the computer on porous surfaces such as rugs or blankets, or near material such as curtains or draperies that may block its ventilation slots.
- ❑ The computer uses high-frequency radio signals and may cause interference to radio or TV reception. If this occurs, relocate the computer a suitable distance away from the set.
- ❑ Use only specified peripheral equipment and interface cables; otherwise, problems may occur.

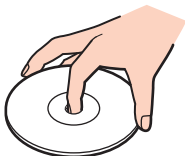
- ❑ Do not use cut or damaged connection cables.
- ❑ If the computer is brought directly from a cold location to a warm one, moisture may condense inside the computer. In this case, allow at least one hour before turning on the computer. If any problems occur, unplug the computer and contact an authorized Sony Service Center. To find the nearest center or agent, visit the Sony online support Web site.
- ❑ Make sure you disconnect the power cord before cleaning the computer.
- ❑ To avoid losing data if the computer is damaged, back up your data regularly.

On Handling Floppy Disks

- ❑ Do not open the shutter manually or touch the surface of the floppy disk.
- ❑ Keep floppy disks away from magnets.
- ❑ Keep floppy disks away from direct sunlight and other sources of heat.
- ❑ Keep the floppy disk away from any liquid. Do not let the floppy disk get wet. When you are not using the floppy disk, always remove it from the floppy disk drive and use a storage case.
- ❑ If the floppy disk comes with an adhesive label, make sure that the label is properly affixed. If the edge of the label is curled up, the label may stick to the inside of the floppy disk drive and cause a malfunction or damage your floppy disk.

On Handling Discs

- ❑ Do not touch the surface of the disc.
- ❑ Do not drop or bend the disc.
- ❑ Fingerprints and dust on the surface of a disc may cause read errors. Always hold the disc by its edges and central hole, as shown below:



- ❑ Proper care of the disc is essential to its continuous reliability. Do not use solvents (such as benzine, thinner, alcohol, commercially available cleaners, or anti-static spray) which may cause damage to the disc.
- ❑ For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the center out.
- ❑ If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the center out. Wipe off any remaining moisture with a dry soft cloth.
- ❑ Never affix an adhesive label on discs. This will affect the use of the disc irreparably.

On Using Headphones

Preventing hearing damage – Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.

On Handling Memory Stick Media

- ☐ Do not use the media in locations that are subject to static electricity or electrical noise.
- ☐ Do not touch the Memory Stick media connector with your finger or metallic objects.
- ☐ Use only the adhesive label supplied with the Memory Stick media as a label.
- ☐ Do not bend, drop, or apply strong shock to the Memory Stick media.
- ☐ Do not disassemble or modify Memory Stick media.
- ☐ Do not let Memory Stick media get wet.
- ☐ Do not use or store Memory Stick media in a location subject to:
 - ☐ Extremely high temperatures, such as in a car parked in the sun
 - ☐ Direct sunlight
 - ☐ High humidity
 - ☐ Corrosive substances
- ☐ Use the storage case supplied with the Memory Stick media.

On Handling the Hard Disk

The hard disk has a high storage density and reads or writes data in a short time. However, it can be easily damaged by mechanical vibration, shock or dust.

Although the hard disk has the internal safety device to prevent losing data due to mechanical vibration, shock or dust, you should be careful when handling the computer.

To avoid damaging your hard disk

- ☐ Do not subject the computer to sudden movements.
- ☐ Keep the computer away from magnets.
- ☐ Do not place the computer in a location subject to mechanical vibration or in an unstable position.
- ☐ Do not move the computer while the power is on.
- ☐ Do not turn off the power or restart the computer while reading or writing data to disk.
- ☐ Do not use the computer in a place subject to extreme changes in temperature.



If the hard disk is damaged, the data cannot be restored.

Troubleshooting

This section describes how to solve common problems you might encounter when using your computer. Many problems have simple solutions. Try these suggestions before visiting the Sony online support Web site at <http://esupport.sony.com/EN/VAIO/> for customers in USA, at <http://www.sony.ca/support> for customers in Canada, or at <http://esupport.sony.com/ES/> for customers in Latin American countries or areas.

- ❑ **Computer** ([page 137](#))
- ❑ **System Security** ([page 143](#))
- ❑ **Internet** ([page 145](#))
- ❑ **CDs, DVDs, and Blu-ray Discs** ([page 147](#))
- ❑ **Display** ([page 152](#))
- ❑ **Printing** ([page 153](#))
- ❑ **Microphone** ([page 154](#))
- ❑ **Mouse** ([page 155](#))
- ❑ **Speakers** ([page 157](#))
- ❑ **Keyboard** ([page 159](#))
- ❑ **Floppy Disks** ([page 160](#))
- ❑ **Audio/Video** ([page 161](#))
- ❑ **Memory Stick Media** ([page 162](#))
- ❑ **Peripherals** ([page 163](#))

Computer

What should I do if my computer does not start?

- ☐ Make sure your computer is securely plugged into a power source and turned on. Make sure the VAIO power indicator shows the power is on.
- ☐ Make sure the optical disc drive (if applicable) is empty.
- ☐ If your computer is plugged into a power strip or uninterruptible power supply (UPS), make sure the power strip or UPS is plugged into a power source and turned on.
- ☐ Make sure the external monitor is plugged into an appropriate power source and turned on.
- ☐ Make sure the brightness and contrast controls are adjusted correctly.
- ☐ Condensation may cause your computer to malfunction. If this occurs, do not use the computer for at least one hour.
- ☐ Remove any extra memory modules you may have inserted since purchase.
- ☐ Make sure your computer is not in Standby mode by pressing any key on the keyboard.

What should I do if a BIOS error appears when I turn on my computer?

If the message "Press <F1> to resume, <F2> to setup" appears at the bottom of your computer screen, follow these steps:

- 1 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
- 2 Press the **→** key to select the **Exit** menu.
- 3 Press the **↓** key to select **Load Optimal Defaults**.
- 4 Press the **Enter** key.
The **Load Defaults?** window appears.
- 5 Press the **Y** key on the keyboard.
- 6 Select **Exit Saving Changes** and press the **Enter** key.
The **Exit Saving Changes?** window appears.
- 7 Press the **Y** key on the keyboard.
Your computer restarts.

If this occurs frequently, contact an authorized Sony Service Center. To find the nearest center or agent, visit the Sony online support Web site.

What should I do if VAIO power indicator lights but my computer screen stays blank?

Follow these steps:

- 1 Press the power button for more than four seconds to check that the VAIO power indicator goes out. Then turn on your computer again.
- 2 If your computer screen still stays blank, unplug the power cord and leave the computer for about a minute. Then plug in the power cord and turn on the computer again.

What should I do if Windows does not start, showing the message "Operating system not found," when I turn on my computer?

- ❑ Make sure your computer does not have a "non-bootable" CD or DVD in the optical disc drive (if applicable).
- ❑ If a non-bootable media is in the drive, follow these steps:
 - 1 Remove the media.
 - 2 Restart your computer and confirm that the Microsoft Windows operating system starts properly.
- ❑ If the Windows operating system still does not start, follow these steps to initialize the BIOS:
 - 1 If there is a CD or DVD in the optical disc drive, remove it.
 - 2 Turn off your computer.
 - 3 Remove any peripheral devices connected to the computer.
 - 4 Restart the computer.
 - 5 Press the **F2** key when the VAIO logo appears.
The BIOS setup screen appears.
 - 6 Press the **→** key to select the **Exit** menu.
 - 7 Press the **↓** key to select **Load Optimal Defaults**.
 - 8 Press the **Enter** key.
The **Load Defaults?** window appears.
 - 9 Press the **Y** key on the keyboard.
 - 10 Select **Exit Saving Changes** and press the **Enter** key.
The **Exit Saving Changes?** window appears.
 - 11 Press the **Y** key on the keyboard.
Your computer restarts.

What should I do if my computer or software stops responding?

- ❑ It is best to turn off your computer using the **Turn Off Computer** option on the Microsoft Windows **Start** menu, located on the taskbar. Using other methods, including those listed below, may result in loss of unsaved data.
- ❑ Click **Start**, point to **Turn Off Computer**, and then click **Turn Off**.
- ❑ If your computer does not turn off, press the **Ctrl+Alt+Delete** keys simultaneously. When the **Windows Task Manager** window appears, click **Turn Off** from the **Shut Down** menu.
When the **Windows Security** window appears, click **Shut Down**.
- ❑ If your computer still does not turn off, press and hold the power button until the computer turns off.
- ❑ If your computer stops responding while playing a CD or DVD, press the **Ctrl+Alt+Delete** keys simultaneously. You can turn off the computer from **Windows Task Manager**.

!
Pressing the **Ctrl+Alt+Delete** keys simultaneously or turning off your computer with the power button may cause loss of data.

- ❑ Remove the power cord.
- ❑ Try reinstalling the software.
- ❑ Contact the software publisher or designated provider for technical support.

Why doesn't my computer enter Standby or Hibernate mode?

Your computer may become unstable if the operating mode is changed before the computer completely enters Standby or Hibernate.

To restore your computer to normal operating stability

- 1 Close all open programs.
- 2 Click **Start, Turn Off Computer**, and then **Restart**.
- 3 If your computer does not restart, press the **Ctrl+Alt+Delete** keys simultaneously.
In the **Windows Task Manager** window, select **Restart** from the **Shut Down** menu to restart the computer.
- 4 If this procedure does not work, press and hold the power button until the computer turns off.

What should I do if Windows does not start, showing a message, when I start my computer?

If you enter a wrong power-on password three times consecutively, the **System Disabled** message appears and Windows will not start. Press the power button for more than four seconds to check that the VAIO power indicator goes off. Wait for 10 or 15 seconds, then restart your computer and enter the correct password. When entering the password, check that the Num Lock indicator and Caps Lock indicator are off. If any are lit, press the **Num Lock** key or the **Caps Lock** key to turn off the indicator before entering the password.

What should I do if my game software does not work or it keeps crashing?

- ☐ Check the web site of the game if there are any patches or updates to download.
- ☐ Make sure you have installed the latest video driver.
- ☐ On some VAIO models, the graphics memory is shared with the system. The optimal graphic performance in this case is not guaranteed.

What should I do if I cannot remember the BIOS password?

If you have forgotten the BIOS password, contact an authorized Sony Service Center to reset it. A reset fee will be charged. To find the nearest center or agent, visit the Sony online support Web site.

Why does it take time before my computer starts?

If Norton Internet Security's Personal Firewall is active, it may take some time before the desktop screen appears due to network security checkups.

Why doesn't my computer screen turn off when the time selected for the automatic turn-off action has passed?

The originally selected VAIO's screen saver disables the timer setting, which you can select using the Windows power options, for your computer screen to turn off.
Change the originally selected VAIO's screen saver.

System Security

This section provides information about keeping your computer operating smoothly and protecting against potential threats to the computer's security.

How can I protect my computer against security threats, such as viruses?

The Microsoft Windows operating system is preinstalled on your computer. The best way to protect your computer against security threats, such as viruses, is to download and install the latest Windows updates regularly.

You can get important Windows updates by doing one of the following:

- ☐ The **Automatic Updates** feature — This feature automatically searches for and delivers updates directly to your computer whenever it is connected to the Internet.
- ☐ The Windows Updates web site — This site enables you to download computer updates without turning on the **Automatic Updates** feature.



Your computer must be connected to the Internet before you can receive updates.

To use the Automatic Updates feature

- 1 Connect to the Internet.
- 2 Click the **Automatic Updates** icon on the taskbar.
- 3 Follow the on-screen instructions to set up automatic or scheduled updates.

To visit the Windows Updates web site

- 1 Connect to the Internet.
- 2 Type **<http://windowsupdate.microsoft.com/>** in the address bar of your browser.
The **Microsoft Windows Update** and **Security Warning** windows appear.
- 3 In the **Security Warning** window, start installation and run **Windows Update**.
- 4 In the **Microsoft Windows Update** window, select an installation type, and follow the on-screen instructions.

How do I keep my antivirus software updated?

You can keep the **Norton Internet Security** software program current with the latest updates from Symantec Corporation.

To download and install the latest security update

- 1 Double-click the **Norton Internet Security** icon on the taskbar. If you have not previously registered the antivirus software, a series of information wizards appears.
 - 1 Follow the on-screen instructions to complete each wizard.
 - 2 Double-click the **Norton Internet Security** icon again.
The **Norton Internet Security** window appears.
If you have previously registered this antivirus software, the **Norton Internet Security** window automatically appears.
- 2 Follow the on-screen instructions to select and download updates.

Internet

What should I do if my modem does not work?

- ☐ Make sure the telephone cable is securely plugged into the modem port on your computer and the wall jack.
- ☐ Make sure the telephone cable is working. Plug the cable into an ordinary telephone and listen for a dial tone.
- ☐ Make sure the telephone number the program is dialing is correct.
- ☐ Make sure the software you are using is compatible with your computer's modem. (All preinstalled Sony programs are compatible.)
- ☐ Make sure the modem is the only device connected to your phone line.
- ☐ Follow these steps to check the settings:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Printers and Other Hardware**.
 - 3 Click **Phone and Modem Options**.
 - 4 On the **Modems** tab, check that your modem is listed.
 - 5 On the **Dialing Rules** tab, check the location information is correct.

Why is my modem connection slow?

Your computer is equipped with a V.92/ V.90 compatible modem. Many factors may influence modem connection speed, including telephone line noise or compatibility with telephone equipment, such as fax machines or other modems. If you think your modem is not connecting properly to other PC-based modems, fax machines, or your Internet Service Provider (ISP), do any of the following:

- ❑ Ask your telephone company to verify your telephone line is free of any line noise.
- ❑ If your problem is fax-related, make sure there are no problems with the fax machine you are calling and that it is compatible with fax modems.
- ❑ If you are having a problem connecting with your ISP, make sure the ISP is not experiencing technical problems.
- ❑ If you have a second telephone line, try connecting the modem to that line.

CDs, DVDs, and Blu-ray Discs

Why does my computer freeze when I try to read a disc?

The disc that your computer is trying to read may be dirty or damaged. Follow these steps:

- 1 Restart the computer by clicking **Start**, **Turn Off Computer**, and **Restart**.
- 2 Eject the disc from the optical disc drive.
- 3 Examine the disc for dirt or damage. If the disc is dirty, see **On Handling Discs (page 133)** for instructions on how to clean it.

What should I do if the drive tray does not open?

- ☐ Make sure your computer is on.
- ☐ Press the drive eject button.
- ☐ If the drive eject button does not work, click **Start** and then **My Computer**. Right-click the optical disc drive icon, and select **Eject** from the shortcut menu.
- ☐ If none of the above options work, insert a thin, straight object (such as a paper clip) in the manual eject hole near the drive eject button.
- ☐ Try restarting your computer.

What should I do if I cannot play a disc properly on my computer?

- ❑ Make sure the disc was inserted into the optical disc drive with the label facing up.
- ❑ Make sure the necessary program(s) is installed according to the manufacturer's instructions.
- ❑ If a disc is dirty or damaged, your computer will stop responding. Follow these steps:
 - 1 Restart the computer by pressing the **Ctrl+Alt+Delete** keys, and selecting **Restart** from the **Shut Down** menu of the **Windows Task Manager** window.
 - 2 Remove the disc from the optical disc drive.
 - 3 Check the disc for dirt or damage. If you need to clean the disc, see **On Handling Discs (page 133)** for instructions.
- ❑ If you are playing a disc and cannot hear sound, do any of the following:
 - ❑ Double-click the **Volume** icon on the taskbar, and click to cancel the **Volume Control Mute All** and **Wave Mute** check boxes.
 - ❑ Check the volume setting in the audio mixer.
 - ❑ If you are using external speakers, check the volume settings on the speakers and the connections between the speakers and your computer.
 - ❑ Make sure the CD audio feature is enabled and the correct driver software is installed. Follow these steps:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Performance and Maintenance**.
 - 3 Click **System**.
The **System Properties** window appears.
 - 4 Select the **Hardware** tab, and click **Device Manager** in the **Device Manager** box.
A window with a listing of your computer's hardware devices appears.
If an "X" or an exclamation point appears on the listed device, you may need to enable the device or reinstall the drivers.

- 5 Double-click the optical disc drive device to open the submenu.
 - 6 Double-click the listed drive, and select the **Properties** tab.
 - 7 Click to select the **Enable digital CD audio for this CD-ROM device** check box, if it is not selected.
You can confirm the driver software by selecting the **Driver** tab, and clicking **Driver Details**.
 - 8 Click **OK** to close the window.
- ☐ Make sure an adhesive label is not affixed to a disc. Adhesive labels can come off while the disc is in the optical disc drive and damage the drive or cause it to malfunction.
 - ☐ If a region code warning appears, the disc may be incompatible with the optical disc drive. Check the DVD package to make sure the region code is compatible with the optical disc drive.
 - ☐ If you notice condensation on your computer, do not use the computer for at least one hour. Condensation can cause the computer to malfunction.
 - ☐ Make sure your computer is running on AC power supply and try the disc again.

What should I do if I cannot write data to CD media?

- ☐ Do not launch any software application or allow any to launch automatically, not even a screen saver.
- ☐ Do not use the keyboard.
- ☐ Do not use a CD-R/RW disc that has an adhesive label affixed to it. This could cause a write error or other damage.

What should I do if I cannot write data to DVD media?

This Q & A entry applies to selected models only. See the online **Specifications** to see whether your model is equipped with an optical disc drive capable of DVD writing.

- ☐ Make sure you are using the correct DVD recordable media.
- ☐ Check which DVD recordable format is compatible with your computer's built-in DVD recorder. Note the possibility that some brands of DVD recordable media do not work.
- ☐ The preinstalled software on your computer does not support copying DVD movies. Macrovision or a similar video protection technology prevents users from copying DVD movies. Copying a DVD movie would be a copyright infringement and therefore illegal.

What should I do if I cannot write data to DVD-RAM media using Windows functions?

This Q & A entry applies to selected models only. See the online **Specifications** to see whether your model is equipped with the DVD±RW/RAM drive.

Follow these steps to change the settings:

- 1 Click **Start** and then **My Computer**.
- 2 Right-click the optical disc drive icon and select **Properties**.
- 3 Click the **Recording** tab.
- 4 Click to cancel the **Enable CD recording on this drive** check box.
- 5 Click **OK**.

! Canceling the **Enable CD recording on this drive** check box disables writing data to CD-R and CD-RW discs. To write data to such discs, make sure to select this check box.

You cannot add data to DVD-RAM discs with data already written by the **Roxio DigitalMedia** software due to difference in disc formatting. Attempt to add data to such a disc will re-format the disc, resulting in loss of the entire written data.

Display

Why did my computer screen go blank?

- ❑ Your computer screen may go blank if the computer has lost power or has entered a power saving mode (Standby or Hibernate). If the computer is in Standby mode, press any key to activate the computer screen. See **Using the Power Saving Modes** (page 89) for more information.
- ❑ Make sure your computer is securely plugged into a power source and turned on. Make sure the power indicator shows the power is on.

Printing

What should I do if I cannot print a document?

- ☐ Make sure your printer is on, and the printer cable is securely connected to the ports on the printer and computer.
- ☐ Make sure your printer is compatible with the Windows operating system installed on your computer.
- ☐ You may need to install the printer driver software before you use your printer. See the manual that came with your printer for more information.
- ☐ If your printer is not functioning after your computer resumes from a power saving mode (Standby or Hibernate), then restart the computer.
- ☐ If the bidirectional communication functions are provided with your printer, disabling the functions on your computer may enable printing. Follow these steps:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Printers and Other Hardware**.
 - 3 Click **Printers and Faxes**.
 - 4 Right-click the printer icon and select **Properties**.
 - 5 Click the **Ports** tab.
 - 6 Click to cancel the **Enable bidirectional support** check box.
 - 7 Click **OK**.

This change to the settings disables the bidirectional communication functions of the printer, such as data transfer, status monitoring, and remote panel.

Microphone

What should I do if my microphone does not work?

If you are using an external microphone, make sure the microphone is turned on and is properly plugged into the microphone jack on your computer.

Mouse

What should I do if my computer does not recognize my mouse?

- ☐ Make sure the supplied AA batteries are properly installed.
- ☐ Press the **CONNECT** button on your mouse and radio frequency receiver to re-establish the connection between the two devices.

What should I do if the pointer does not move when I use my mouse?

- ☐ Make sure another mouse is not installed.
- ☐ If you are playing a disc, press the **Ctrl+Alt+Delete** keys simultaneously to stop playback and restart your computer.
- ☐ If you still cannot use the pointer, do any of the following:
 - ☐ Press the **Ctrl+Alt+Delete** keys simultaneously.
In the **Windows Task Manager** window, select **Restart** from the **Shut Down** menu to restart your computer.
 - ☐ Press and hold the power button. When your computer turns off, wait 10 to 15 seconds then press the power button again to restart the computer.

- ❑ If you are using a wireless optical mouse:
 - ❑ Make sure the supplied AA batteries are properly installed.
 - ❑ Press the **CONNECT** button on your mouse and radio frequency receiver to re-establish the connection between the two devices.
 - ❑ Verify the radio frequency receiver is free of obstructions that may prevent proper operation.
 - ❑ Avoid using radio-controlled toys or equipment, CB radios, and other wireless devices near your wireless mouse. These devices may cause interference, causing your mouse to stop working properly.
 - ❑ Do not place metal furniture near your computer or wireless mouse, as this may create interference, causing your mouse to stop working properly.

Speakers

What should I do if my speakers do not work?

- ☐ Make sure your speakers are properly connected and the volume is turned up loud enough to hear sound.
- ☐ Make sure your speakers are designed for computer use.
- ☐ If your speakers have a muting button, set the button to off.
- ☐ The speaker volume may have been turned off. Press the muting button on your keyboard.
- ☐ If your keyboard also has a volume control, make sure the volume is turned up loud enough to hear sound.
- ☐ If you have connected an audio cable to the headphones jack, disconnect the cable and use the speaker cable supplied with your speakers.
- ☐ If your speakers require external power, make sure the speakers are connected to a power source. See the manual that came with your speakers for more information.

What should I do if I cannot hear sound from my speakers?

- ❑ If you are using a program that has its own volume control, make sure the volume control is properly set. See the program's help file for more information.
- ❑ Make sure the speaker volume is turned up loud enough and the audio option is enabled.
- ❑ The speaker volume may have been turned off. Press the muting button on your keyboard.
- ❑ If your keyboard also has a volume control, make sure the volume is turned up loud enough to hear sound.
- ❑ Follow these steps to check the volume controls in Windows:
 - 1 Click **Start** and then **Control Panel**.
 - 2 Click **Sounds, Speech, and Audio Devices**.
 - 3 Select the Sound Reality item and change the settings.

Keyboard

What should I do if the keyboard configuration is wrong?

- ❑ The language layout of your computer's keyboard is specified on the sticker on the box. If you choose a different regional keyboard when you complete the Windows setup, the key configuration will be mismatched.
- ❑ To change the keyboard configuration, follow these steps:
 - 1 Click **Start** and then **Control Panel**
 - 2 Click **Date, Time, Language and Regional Options**, and click **Regional and Language Options**.
 - 3 Change the settings as desired.

Floppy Disks

Why doesn't the Safely Remove Hardware icon appear on the taskbar when the drive is connected?

Your computer does not recognize the floppy disk drive. First, make sure the USB cable is properly connected to the USB port. If you need to secure the connection, wait a few moments for the computer to recognize the drive. If the icon still does not appear, follow these steps:

- 1 Close all programs that are accessing the floppy disk drive.
- 2 Wait for the LED indicator on the floppy disk drive to turn off.
- 3 Push the eject button to remove the disk, and disconnect the USB floppy disk drive from your computer.
- 4 Reconnect the floppy disk drive by inserting the USB connector (with the USB icon facing upward) into the USB port.
- 5 Restart the computer by clicking **Start**, **Turn Off Computer**, and then **Restart**.

What should I do if I cannot write data to a floppy disk?

- ☐ Make sure the floppy disk is properly inserted in the drive.
- ☐ If the disk is inserted properly and you are still unable to write data to it, the disk may be full or write-protected. You can either use a floppy disk that is not write-protected or disable the write-protect feature.

Audio/Video

What should I do if I cannot use my DV camcorder?

If the message that DV equipment seems to be disconnected or turned off appears, the i.LINK cable may not be securely plugged into the ports on your computer or camcorder. Unplug the connectors, and plug them in again. See **Connecting an i.LINK Device (page 80)** for more information.



i.LINK is a trademark of Sony used only to designate that a product contains an IEEE 1394 connection. The i.LINK connection may vary, depending on the software applications, operating system, and compatible i.LINK devices. All products with an i.LINK connection may not communicate with each other. See the manual that came with your compatible i.LINK device for more information on operating conditions and proper connection. Before connecting compatible i.LINK PC peripherals to your system, such as a CD-RW or hard disk drive, confirm their operating system compatibility and required operating conditions.

Memory Stick Media

What should I do if I cannot open my image files?

You may need to reformat your Memory Stick media.

Formatting Memory Stick media erases all data, including music data previously saved to it. Before you reformat Memory Stick media, back up important data and confirm that the media does not contain files you want to keep.

- 1 Copy the data from the Memory Stick media onto your computer's hard disk to save data or images.
- 2 Format the Memory Stick media using the **Memory Stick Formatter** software preinstalled on your computer. For instructions about formatting a Memory Stick media, see the help file on the **Memory Stick Formatter** software.

Why can't I save music files onto my Memory Stick media?

Copyright protected music cannot be checked out to any Memory Stick media other than MagicGate Memory Stick media.

! Using recorded music requires permission of the copyright holders.

Sony is not responsible for music files that cannot be recorded from a CD or downloaded from other sources.

Can I copy images from a digital camera using Memory Stick media?

Yes, and you can view video clips that you have recorded with Memory Stick media-compatible digital cameras.

Peripherals

What should I do if I cannot connect a USB device?

- ❑ If applicable, check the USB device is turned on and using its own power supply. For example, if you are using a digital camera, check the battery is charged. If you are using a printer, check the power cable is connected properly to the AC outlet.
- ❑ Try using a different USB port on your computer. The driver could be installed to the specific port you used the first time you connected the device.
- ❑ See the manual that came with your USB device for more information. You may need to install software before you connect the device.
- ❑ Try connecting a simple, low-powered device such as a mouse to test if the port is working at all.
- ❑ USB hubs may prevent a device from working because of the distribution of power. We recommend you connect the device directly to your computer without a hub.

Support Options

The section contains information on where to go for answers to questions about your computer and the preinstalled software.

Sony Support Information

See the following sources for answers in the sequence listed below.

1 VAIO Computer Documentation

This on-screen **User Guide** (this manual) and the printed **Welcome mat** provide detailed information on how to maximize your computer's capabilities and solve common problems.

2 Program Guides and Help Files

The preinstalled programs on your computer may be supplied with individual help guides. These guides are stored on the hard disk as on-screen help files. You can find the help files from the help menu under the specific program.

3 Operating System Online Support

Your computer comes preinstalled with a Microsoft Windows operating system. For operating system support, you can visit Microsoft customer support at: <http://support.microsoft.com/directory/>.

4 Sony Computing Support

This service provides instant access to information on commonly encountered problems. Type a description of the problem and the Knowledge Database searches for the corresponding solutions online. You can visit the Sony online support Web site at <http://esupport.sony.com/EN/VAIO/> for customers in USA, at <http://www.sony.ca/support> for customers in Canada, or at <http://esupport.sony.com/ES/> for customers in Latin American countries or areas.

5 VAIO Update

When your computer is connected to the Internet, **VAIO Update** automatically notifies you when critical software and security information is posted on the support web site. Click the **VAIO Update** notice to open the VAIO Support web site and view the information.

Program Support Information

Depending on the computer model and particular configuration you purchased, your computer may not include all of the software programs listed below.

Contacts for Sony software products are listed below:

- ❑ For users in USA
Web Site <http://esupport.sony.com/EN/VAIO/>
Telephone 888-4-SONY-PC (888-476-6972)
- ❑ For users in Canada
Web Site <http://www.sony.ca/support>
Telephone 888-4-SONY-PC (888-476-6972)
- ❑ For users in Latin American countries or areas
Web Site <http://esupport.sony.com/ES/>

For contacts about third-party software products, see the following.

Adobe® Photoshop® Elements, Premiere®, Reader®

Adobe Systems Inc.

- ❑ For users in USA and Canada
Web Site <http://www.adobe.com/support>
Telephone 800-685-3652

America Online® (Dial-Up)

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://www.aol.com>

AOL® Music Now

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://www.premiumservices.aol.com>

AOL® Explorer

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://www.aol.com>

AOL® Toolbar

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://help.aol.com/help>

AOL® Instant Messenger™

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://www.aim.com>

Bluetooth® Utility

TOSHIBA Corporation

For contacts about the software, see **Program Support Information (page 165)**.

Cingular Connection Manager

Cingular Wireless

- ☐ For users in USA and Canada
Web Site <http://help.aol.com/help>

Click to DVD® software

Sony Electronics Inc.

At the touch of a button, Click to DVD software allows you to automatically burn DVDs from a digital video (DV) device. Create DVDs by capturing video content straight from a DV device or by importing video from stored files — and you can also edit the video. Create DVD photo albums and slide shows with picture files or by importing pictures from a digital still camera. What's more, you can give a professional look to your DVDs by adding chapter menus, backgrounds, and menu screens. You are only a few clicks away from your own DVDs!

For contacts about the software, see **Program Support Information (page 165)**.

DISCover™ My Games™

DISCover

- ❑ For users in USA and Canada

Web Site <http://www.discoverconsole.com>

DVgate Plus™ software

Sony Electronics Inc.

Connect a compatible digital video camera to your computer's i.LINK port and capture video clips and still images. Edit clips from your video, add new clips, and combine clips into new movie segments. Save your movies back to your digital video camera or in a variety of popular file formats.

For contacts about the software, see **Program Support Information (page 165)**.

Image Converter 2 Plus

Sony Electronics Inc.

Image Converter 2 Plus allows you to easily convert movie and picture files on your computer to your Memory Stick® media.

For contacts about the software, see **Program Support Information (page 165)**.

Intel® PROSet

Intel Corporation

- ❑ For users in USA and Canada

Web Site http://www.intel.com/network/connectivity/products/wireless/proset/proset_software.htm

Microsoft® Office Basic Edition, Office Professional Edition, Office Small Business Edition

Microsoft Corp.

- ☐ For users in USA and Canada
Web Site <http://support.microsoft.com>

60-Day Trial Version of Microsoft® Office 2003

!

The Microsoft Office 2003 60-Day Trial software included with this computer system is intended for evaluation purposes only. The software has been installed and you must activate the software before you can use it. Product activation procedures will be detailed during initial launch of the software; activation requires Internet access. This software has an expiration date of 60 days from date of first use, at which time the software will operate under reduced-functionality mode, limiting end-user options and operations.

Microsoft Corp.

- ☐ For users in USA and Canada
Web Site <http://support.microsoft.com>

Microsoft® Internet Explorer, Movie Maker, Media Player, Works

Microsoft Corp.

- ☐ For users in USA and Canada
Web Site <http://support.microsoft.com>

Netscape® Browser

America Online, Inc.

- ☐ For users in USA and Canada
Web Site <http://browser.netscape.com>

Norton Internet Security™

Symantec Corporation

- ☐ For users in USA and Canada
Web Site <http://www.symantec.com/techsupp>

Protector Suite QL

Sony Electronics Inc.

Protector Suite QL Edition allows you to easily setup your fingerprint sensor that comes with your computer. Protector Suite QL supports fingerprint logon, fast user switching, file encryption, registering forms and more. For contacts about the software, see **Program Support Information (page 165)**.

Quicken® New User Edition

Intuit Inc.

- ☐ For users in USA and Canada
Web Site <http://www.intuit.com/support/quicken/>

ROXIO DigitalMedia®

Sonic Solutions

- ☐ For users in USA and Canada
Web Site <http://support.sonic.com/>

SmartWi™ Connection Utility

Sony Electronics Inc.

SmartWi Connection Utility allows you to easily switch between the various wireless components (Wireless LAN, Wireless WAN, and Bluetooth technology connectivity) that came with your computer.

For contacts about the software, see **Program Support Information** (page 165).

SonicStage® software

Sony Electronics Inc.

The SonicStage jukebox software program gives you all the tools you need to manage music on your computer. SonicStage software supports high-quality digital audio storage, a sleek player skin design, and audio CD burning capability.

For contacts about the software, see **Program Support Information** (page 165).

SonicStage Mastering Studio™ software

Sony Electronics Inc.

Use SonicStage Mastering Studio software to record songs from analog records or cassette tapes into your computer and output them to CDs, DVDs, or audio files in WAV format.

For contacts about the software, see **Program Support Information** (page 165).

System Mechanic® 6

iolo technologies®, LLC

- ☐ For users in USA and Canada

Web Site <http://www.iolo.com/contactus.cfm>

Trend Micro™ Anti-Spyware

Trend Micro, Inc.

- ☐ For users in USA and Canada

Web Site <http://kb.trendmicro.com/search/default.asp>

Ulead BD DiscRecorder for VAIO® computers

Ulead Systems, Inc.

For questions and technical assistance, please check the help and the readme files.

VAIO® Action Setup

Sony Electronics Inc.

VAIO Action Setup manages the settings for your computer's shortcut keys.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Camera Utility

Sony Electronics Inc.

VAIO Camera Utility provides you with various video quality settings when using the internal camera.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Central

Sony Electronics Inc.

VAIO Central provides a central location that gathers resources to configure your VAIO computer and view your computer's configuration and specifications.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Edit Component

Sony Electronics Inc.

VAIO Edit Component provides enhanced editing functionality when using Adobe Premiere Pro, Adobe Premiere Standard, or Adobe Premiere Elements on your VAIO computer.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO Media™ software

Sony Electronics Inc.

VAIO Media™ software brings multimedia to your network, enabling you to share music, video, and still image files between your VAIO® computers. You can set up one or more VAIO computers as "media servers," which store your multimedia files and make them available to other compatible VAIO computers on your wired or wireless network. For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Security Center

Sony Electronics Inc.

Sony cares about your VAIO personal computer. The VAIO Security Center highlights some of the security features your machine includes.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Support Central

Sony Electronics Inc.

VAIO Support Central provides an easy to navigate solution to common support needs, such as VAIO Documentation, product specifications, serial number, model name, service tag information, survey, registration, etc.

For contacts about the software, see **Program Support Information** ([page 165](#)).

VAIO® Update

Sony Electronics Inc.

The VAIO Update utility helps you keep your VAIO® computer up to date by regularly checking the Sony online support Web site for important software updates and information for your specific VAIO computer model.

For contacts about the software, see **Program Support Information (page 165)**.

VAIO Zone™ software

Sony Electronics Inc.

VAIO Zone software provides an effortless way to browse and enjoy pictures, music, and video files on your computer, all through an elegant, next-generation interface. You can even enjoy media content stored on other VAIO® computers on your network. On VAIO computer models with a recordable DVD drive, VAIO Zone enables you to record video and slide shows of pictures to DVD. On VAIO computer models with a built-in TV tuner, VAIO Zone includes a complete personal video recorder, enabling you to record TV programs and burn them to DVD.

For contacts about the software, see **Program Support Information (page 165)**.

WinDVD® software for VAIO® computers

InterVideo, Inc.

- ❑ For users in USA and Canada
Web site <http://www.intervideo.com/jsp/Support.jsp>
Telephone 510-651-0888

Wireless Setup Utility

Sony Electronics Inc.

The Wireless Setup Utility walks you through setting up your wireless network connection and offers useful diagnostic tests to help keep your wireless network running smoothly.

For contacts about the software, see **Program Support Information** (page 165).

Xdrive™

America Online, Inc.

- ☐ For users in USA and Canada

Web Site <http://www.xdrive.com/support>

